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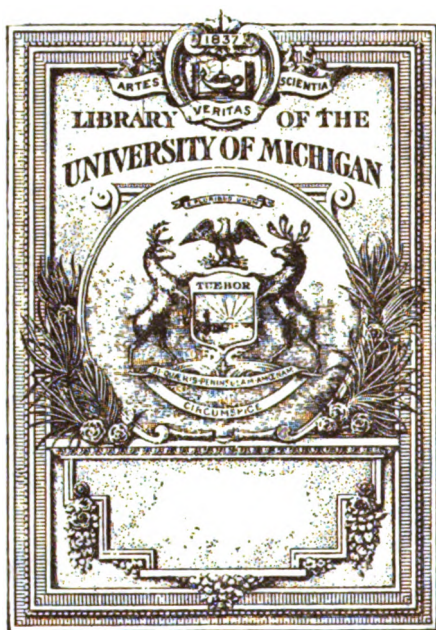
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DEPARTMENT OF THE INTERIOR  
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JANUARY, 1921



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# MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS.

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CONTENTS.—Educational history and biography—Current educational conditions—Educational theory and practice—Educational psychology; Child study—Educational tests and measurements—Special methods of instruction—Special subjects of curriculum—Kindergarten and primary school—Rural education—Secondary education—Teachers' salaries and professional status—Higher education—School administration—School management—Schoolhouses and grounds—School hygiene and sanitation—Physical training—Play and recreation—Social aspects of education—Child welfare—Moral and religious education—Manual and vocational training—Vocational guidance—Home economics—Commercial education—Professional education—Civic education—Americanization—Education of soldiers—Education of women—Education of blind and deaf—Education extension—Libraries and reading—Bureau of Education: Recent publications.

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## NOTE.

The record comprises a general survey in bibliographic form of current educational literature, domestic and foreign, received during the monthly period preceding the date of publication of each issue.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

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## EDUCATIONAL HISTORY AND BIOGRAPHY.

224. **Bliss, Daniel.** The reminiscences of Daniel Bliss; edited and supplemented by his eldest son. New York, Chicago, Fleming H. Revell company [1920] 259 p. plates. 12°.

The subject of this biography was for many years president of the Syrian Protestant college at Beirut, Syria.

225. **Cubberley, Ellwood P.** Readings in the history of education; a collection of sources and readings to illustrate the development of educational practice, theory, and organization. Boston, New York [etc.] Houghton Mifflin company [1920] xxv, 684 p. illus. 8°. (Riverside textbooks in education)

To accompany author's History of education.

## CURRENT EDUCATIONAL CONDITIONS.

## UNITED STATES.

2226. **Alderman, Edwin A.** The nation's supreme task. *World's work*, 41 : 126-29, December 1920.  
Discusses tendencies in education; duplication of educational procedure, etc.
2227. **Burgess, W. Randolph.** Which do we want—economy or competence. *School review*, 28 : 750-56, December 1920.  
Discusses governmental efforts for economy; also requirements for good schools; the school's share in prosperity, etc.
2228. **Davidson, Percy E.** Equality of educational opportunity: the views of the economists. *School and society*, 12 : 535-42, December 4, 1920.
2229. **Detroit, Mich. Board of education.** Seventy-seventh annual report of the superintendent of schools for the year ending June 30, 1920. Detroit, Board of education, 1920. 120 p. illus. 8°.  
Early in the school year 1919-20 a survey was made of the school system by departments. This report tells of some of the changes that have been made as a result of these survey activities.
2230. **Duggan, M. L.** [Educational surveys of counties in Georgia] [Atlanta, Ga., State department of education] 1919-1920. 3 v. illus. 8°. (Georgia. Department of education. No. 27, 28, 29)  
No. 27.—Educational survey of Warren county, Georgia, 30 p. No. 28.—Educational survey of Lee county, Georgia, 25 p. No. 29.—Educational survey of Miller county, Georgia, by M. L. Duggan and Miss Euri Belle Bolton, 48 p.
2231. **Duncan, M. H.** Cultural education. *Southwestern school review*, 1 : 10-20, October 15, 1920.  
Endeavors to show how the new education makes culture the supreme aim of the schools.
2232. **Fitzpatrick, Edward A.** The Ayres report and the Wisconsin educational situation. *Wisconsin journal of education*, 52 : 320-24, December 1920.  
After discussing some of the remarks that the Wisconsin state superintendent of public instruction has made upon the Ayres report, the writer says that the answer to the Russell Sage Foundation study is not alibi or criticism, but constructive program. Three things are necessary for educational improvement in Wisconsin: (1) A competent courageous educational leadership, (2) A reconstruction of the machinery of state educational administration, and (3) A comprehensive state-wide educational program.
2233. **Kuhlman, A. F.** Social survey of the city of Jackson and Madison county, Tennessee. Pub. by Jackson-McClaran chapter, American Red Cross, 1920. 139 p. 8°.  
Contents.—I. History.—II. Health.—III. Housing and sanitation.—IV. Education.—V. Family welfare.—VI. Child welfare.—VII. Recreation.—VIII. Church life.—IX. Industry.—X. Agriculture.—XI. Government.
2234. **North Carolina. State educational commission.** Public education in North Carolina; a report by the State educational commission, prepared under the direction of the commission by the General education board. Raleigh, Edwards & Broughton printing co., state printers, 1920. x, 137 p. plates, tables. 12°.  
Members of the State educational commission: Robert H. Wright, chairman; L. J. Bell, secretary; N. W. Walker, C. E. Brewer, C. C. Wright.  
The report here submitted contains the findings and the general recommendations of the commission. It first describes the schools as they are at present, next sets forth the hindrances to development, and finally undertakes to point the way to improvement by means of better administration, better trained teachers, and better financial support.
2235. **Scranton, Pa. Board of education.** Survey of the Scranton public schools, 1918-1920. Scranton, Pa., Board of education [1920] 242 p. 8°.
2236. **Strayer, George D.** A national program for education. *Journal of the National education association*, 10 : 5-7, January 1921.  
Final report of the Commission on emergency in education as presented by its chairman at the Salt Lake City meeting of the National education association, July 6, 1920.

## FOREIGN COUNTRIES.

2237. **Brailsford, H. N.** Russian impressions: Education and art. New Republic, 25 : 44-48, December 8, 1920.  
Education and art in Soviet Russia.
2238. **Darlú, A.** Le budget de l'instruction publique devant la chambre. Revue politique et parlementaire, 105 : 15-26, October 10, 1920.
2239. **Picavet, François.** Méthodes allemandes et méthodes françaises. Revue internationale de l'enseignement, 40 : 305-24, September-October 1920.

## EDUCATIONAL THEORY AND PRACTICE.

2240. **Orothers, Samuel McChord.** The dame school of experience and other papers. Boston and New York, Houghton Mifflin company, 1920. 279p. 12°.
2241. **Lowell, Abbott Lawrence.** Formalism in education. Journal of education, 92 : 511-13, November 25, 1920.  
Address at the inauguration of the president of the University of North Carolina.  
The writer says in conclusion that we need to free ourselves from the system of credits in education, and to measure the child or youth by what he has come to be, instead of by the process he has been through.
2242. **Morgan, Geoffrey E.** The problem of teaching pupils to think. American school board journal, 61 : 37, December 1920.  
Says of all the needs in America today, the greatest need is for clear thinking and the ability to think things through. Suggests some ways by which we may substitute sound and, wholesome reasoning for shallow and fallacious reasoning.
2243. **Nunn, Thomas Percy.** Education: its data and first principles. New York, Longmans, Green and co.; London, Edward Arnold, 1920. vii, 224p. 12°.  
(The modern educator's library. General editor—Prof. A. A. Cock)

## EDUCATIONAL PSYCHOLOGY; CHILD STUDY.

2244. **Aguayo, A. M.** . . . El vocabulario de los niños Cubanos. [Habana] Universidad de la Habana, 1920. 29p. 8°. (Monografías paidológicas, no. 1.)
2245. **Clapp, Henry L.** The development of spontaneity, initiative, and responsibility in school children. Education, 41 : 209-21, December 1920.  
Discusses the philosophy of self-activity; and emphasizes the importance of organized play adapted to the schoolroom.
2246. **Porter, W. T.** The seasonal variation in the growth of Boston school children. p. 121-31. 8°.  
Reprinted from the American journal of physiology, vol. 52, no. 1, May 1920.

## EDUCATIONAL TESTS AND MEASUREMENTS.

2247. **Baldwin, Bird T. and others.** Studies in experimental education. Baltimore, The Johns Hopkins press, 1920. 75p. 8°. (Johns Hopkins university studies in education, no. 3)  
CONTENTS.—I. Introduction and summary, by B. T. Baldwin.—II. Physical measurements, by L. W. Campbell and H. J. Kefauver.—III. The application of the Yerkes-Bridges point scale and the standard revision of the Binet scale for measuring intelligence, by R. L. Bates and others.—IV. Application of the Courtis standard research tests in arithmetic—series B, by A. K. Bielaski and G. L. Palmer.—V. Results in arithmetic by Woody scale "A," by W. H. Davis and R. L. Clark.—VI. An experiment in measuring the handwriting of a group of children for speed and quality, by W. R. Flowers.—VII. The Kansas silent reading test, by M. O. Ebaugh.—VIII. The Starch test for speed and comprehension and the Thorndike visual vocabulary test, by B. J. Grimes.—IX. Application of Ayres, Buckingham, and Starch scales in spelling, by D. B. Berry.—X. The Trabue completion test, by M. A. Clemens and F. E. Rathbun.—XI. Hillegas scale for the measurement of quality in English composition, by J. B. H. Bowser and H. L. Rinehart.—XII. The use of the Ballou scale on a set of compositions written by seventh grade pupils, by G. E. Manson and L. W. Linthicum.

2248. **Bassett, Dorothy M. and Porteus, S. D.** Sex differences in Porteus maze test performance. *Training school bulletin*, 17 : 105-20, November 1920.  
References: p. 119-20.
2249. **Dealey, Hermione L.** The psycho-educational clinic—its constructive policy. *Modern medicine*, 2 : 743-45, November 1920.  
The psycho-educational clinic and its relation to the public schools. Writer says that without a realization of the needs of the child in terms of its mental and physical health the power of the school as a socializing agent must remain purely nominal.
2250. **Pressey, S. L.** An attempt to measure the comparative importance of general intelligence and certain character traits in contributing to success in school. *Elementary school journal*, 21 : 220-29, November 1920.  
Deals with the comparative importance of general health, "school attitude," preparation, and ability, in conditioning success in school and success on a scale of intelligence. The method of partial correlations was used throughout.
2251. **Smith, Leon O.** The present status of mental tests. *Middle-west school review*, 13 : 7-9, November 1920.  
The author also has an article in the December issue of the *Middle-west school review*, entitled, *Mental tests and their relation to educational guidance*.
2252. **Wilson, G. M. and Hoke, Kremer J.** How to measure. New York, The Macmillan company, 1920. vii, 285p. tables, charts (partly folded) 12°.   
The authors of this book believe that the individual classroom teacher should understand and give the standard tests in school subjects and in general intelligence. The chief purpose to be served by these tests is the diagnosis of pupil ability and pupil difficulties, with the object of correcting methods of teaching and curricular material.
2253. **Winter, O.** Chicago intelligence test in Harrison technical high school. *School review*, 28 : 772-75, December 1920.  
Study based on test devised by Rugg and Freeman of the University of Chicago.

### SPECIAL METHODS OF INSTRUCTION.

#### PROJECT METHOD.

2254. **Imboden, Sarah M.** A cooperative community study. *Elementary school journal*, 21 : 208-15, November 1920.  
Problem method of attack in the teaching of geography. Work of the fifth, sixth, seventh, and eighth-grade pupils of Decatur, Ill.
2255. **Jilek, Annie L.** The project method in teaching civics. *Elementary school journal*, 21 : 216-19, November 1920.  
Work in Theodore Herzel school, Chicago, Ill.
2256. **Parker, Samuel C.** Problem-solving or practice in thinking. *Elementary school journal*, 21 : 172-88, 257-72, November, December 1920.  
Concludes a series of four articles. Discusses work in second and fifth grades, with a résumé of how skillful problem-solvers think. Gives rules for practicing pupils in problem-solving.

#### VISUAL INSTRUCTION.

2257. **Cocks, Orrin G.** The motion picture and the upbuilding of community life. *Social hygiene*, 6 : 533-39, October 1920.  
Read before the annual session of the National conference of social work, New Orleans, April 16, 1920.
2258. **Norman, Hugh W.** Stimulative visual work at Indiana university. *Educational film magazine*, 4 : 8-9, 24, December 1920.  
The aims and accomplishments of the Bureau of visual instruction of Indiana university.

#### MISCELLANEOUS.

2259. **Beatty, Willard W.** An experiment in the use of pageantry and ritual as motivating forces in education. *Historical outlook*, 11 : 342-49, December 1920.

2260. **Briggs, Thomas H.** The excursion as a means of education. Junior high clearing house, 1: 19-23; October-November 1920.

Excursions conducted by the Speyer Experimental junior high school, New York City. Tells particularly of a visit to the Museum of natural history.

### SPECIAL SUBJECTS OF CURRICULUM.

#### SPELLING.

2261. **Martin, Gertrude E.** The teaching of spelling. Elementary school journal, 21: 201-07, November 1920.

Study based on work of four grades of the Washington school, Wichita, Kans.

#### ENGLISH AND COMPOSITION.

2262. **Dolch, Edward William, jr.** Practical punctuation. Illinois association of teachers of English bulletin, 13: 1-16, December 1, 1920.

The purpose of this article is to propose a new and better method of teaching punctuation.

2263. **Friedewald, Salo.** A course in etymology. Education, 41: 242-47, December 1920.

Suggests that a one-year course in etymology be introduced into our schools, to be given during the first year of the high school, or in the junior high school, or during the last year of the grammar grades. Presents outlines for such a course.

2264. **Murphy, Maydell.** The daily grind. English journal, 9: 525-29, November 1920.

Some suggestions for bringing variety into the work of the English teacher.

2265. **Wolverton, Sarah F.** The professional scullery. Educational review, 60: 407-16, December 1920.

Discusses the teaching of English composition. The necessity for better instruction.

#### LITERATURE.

2266. **Porterfield, Allen W.** On histories of modern literature with special reference to their use in synoptic courses. School and society, 12: 542-51, December 4, 1920.

#### ANCIENT CLASSICS.

2267. **Aley, Robert J.** The place of the classics. Journal of education, 92: 546-47, December 2, 1920.

#### MODERN LANGUAGES.

2268. **Buffum, Douglas L.** The aims of modern language teaching. A few suggestions. Modern language journal, 5: 71-76, November 1920.

Advocates oral as well as written examinations in modern language and makes a plea that more emphasis be put on the spoken language in the classroom.

2269. **Fitz-Gerald, John D. and Nonnez, Alfred.** Syllabus for high school Spanish. Modern language journal, 5: 77-86, November 1920.

Report of a committee appointed by the Association of modern language teachers of the Central West and South to draw up a standard four year syllabus for high school Spanish.

2270. **Hayden, Philip M.** Experience with oral examinations in modern languages. Modern language journal, 5: 87-92, November 1920.

The successful operation of oral tests in modern languages at Columbia university.

2271. **Modern language association of America and National federation of modern language teachers.** Resolutions concerning the teaching of modern languages. School review, 28: 776-78, December 1920.

#### MATHEMATICS.

2272. **Beatty, W.** The additive versus the borrowing method of subtraction. School journal, 21: 198-200, November 1920.

Says  
by the  
ion of one method only for teaching subtraction is certainly not justified  
the advantages of the borrowing method.

## SCIENCE.

2273. **Gerry, H. Lester.** Natural science in the secondary school: a digest of recent literature. General science quarterly, 5 : 1-15, November 1920.

## GEOGRAPHY.

2274. **Ashton, Bessie L.** A course in geography for normal schools. Journal of geography, 19 : 295-308, November 1920.

The National council of normal school presidents appointed a committee to secure and pass upon the normal school courses in geography. Out of the courses submitted to this committee the one here published was awarded second place.

2275. **Lackey, E. E.** The geography of a country. Journal of geography, 19 : 315-22, November 1920.

Deals with the selection of subject matter, a method for the organization of geographic materials, and suggests phases of the subject that should be emphasized in each of the school grades.

## SOCIAL SUBJECTS.

2276. **Browning, Oscar.** The study of world-history. Journal of education and School world (London) 52 : 729-31, 795-97, November, December 1920.

On the value of the study of world history by the venerable Oscar Browning, who has long been known as a pioneer in the advocacy of this study.

2277. **Dowell, Edward S.** The method of history instruction used in the Bucyrus high school. Historical outlook, 11 : 356-59, December 1920.

First gives reasons for the dissatisfaction with the present method of teaching history in secondary schools and then gives a plan worked out in an effort to meet the objections raised by the critics of the traditional method.

2278. **Kingale, Maud E.** Outline study of David Balfour. Education, 41 : 226-41, December 1920.

2279. **Schlesinger, Arthur Meier.** The problem of teaching recent American history. Historical outlook, 11 : 352-55, December 1920.

A paper read before the Iowa society of social science teachers at Des Moines, November 4, 1920.

2280. **Wolfe, A. B.** The teaching of economics again. Journal of political economy, 28 : 735-53, November 1920.

## MUSIC.

2281. **Dickey, Frances.** Music in the grammar grades. School music, 21 : 7-12, November 1920.

Summarizing, the writer says that our music training in school should include singing experience that will give the child pleasure while in school and at the same time train him in such habits and ideals that the influence of this will be evident later in his own life and in the musical life of the community; also, that a definite amount of time and positive training in learning to listen to music must be provided in our program if our pupils learn to appreciate music.

## SAFETY.

2282. **Payne, E. George.** The problem of school hazards. National school digest, 40 : 215-17, December 1920.

Developing controls in children and systematic instruction reduce accidents to minimum.

## KINDERGARTEN AND PRIMARY SCHOOL.

2283. **International kindergarten union.** Proceedings of the twenty-seventh annual meeting. . . Topeka, Kans., April 12-16, 1920. 155 p. 8°. (Miss May Murray, secretary, Springfield, Mass.)

Contains: 1. J. F. Hosc: For democracy—through democracy, p. 99-104. 2. Lorraine E. Wooster: Rights of young children to proper education in rural schools, p. 109-12. 3. Mary D. Bradford: The contribution of the kindergartens to the elementary schools, p. 113-20. 4. F. J. Kelly: Problems in the growth of the kindergarten movement, p. 121-26. 5. Julia W. Abbot: The kindergarten situation today, p. 127-32. 6. Lucy Wheelock: 'he teacher as the controlling factor, p. 136-39. 7. Catherine R. Watkins: The kindergarten as a profession, p. 140-43.



2284. **Ford, S. Gertrude.** Primary education in America. *Teacher's world* (London) 24 : 297, November 17, 1920.
2285. **Holmes, Margaret C.** The kindergarten and its relation to the primary school. *Kindergarten and first grade*, 5 : 401-405, December 1920. illus.
2286. **Maynard, Gertrude.** Shall the children make Christmas presents? An unpopular view of the Christmas problem. *Kindergarten and first grade*, 5 : 397-400, December 1920.
- Favors more dramatic work in celebrating the festival rather than so much industrial work in attempting to make presents for parents.

### RURAL EDUCATION.

2287. **English, Mildred E.** Capleville consolidated school. *Rural education*, 2 : 9-20, November 1920. illus.
- The Capleville consolidated school is located in Shelby county, Tennessee, not far from Memphis. This is the story of community building through the agency of a regenerated rural school.
2288. **Foght, Harold W.** Elimination in the rural school course of study. *Rural education*, 2 : 6-9, November 1920.
2289. **Lathrop, Edith.** Project for country life betterment has vital bearing on rural schools. *Kansas teacher*, 12 : 27-28, December 1920.
- Says that consolidated farm-life schools offer best solution to problem of 195,400 one-teacher schools.
2290. **Runnels county, Texas.** *Rural schools.* Rural view, 1920. 269 p. illus. 4°.
- Describes the work of the schools of Runnels county, Texas. The book is issued after the style of college annuals.

### SECONDARY EDUCATION.

2291. **Bobbitt, Franklin.** The objectives of secondary education. *School review*, 28 : 738-49, December 1920.
- Discusses the objectives of physical efficiency. Says the objectives of health education aimed at within any school system must differ from region to region according to the specific needs of the population. The writer also outlines a more inclusive series which embraces physical, mental, vocational and civic objectives.
2292. **Rogers, P. C., jr.** Failures in the high school—proportion, causes, and administrative measures for reducing them. *Southern school work*, 9 : 160-63, December 1920.
2293. **Wisner, William.** An educational innovation—the all-year high school. *American school board journal*, 61 : 29-30, December 1920.
- An experiment with the all-year high school in Newark, New Jersey.

### TEACHERS' SALARIES AND PROFESSIONAL STATUS.

2294. **Jordan, Riverda Harding.** The classroom teacher and teacher shortage. *Journal of education*, 92 : 483-84, November 18, 1920.
- How the classroom teacher can help in recruiting members from the teaching profession.
2295. **Puffer, B. A.** A study of the merit system. *Colorado school journal*, 36 : 9-11, December 1920.
- A questionnaire was sent to about 50 of the larger cities of the country to ascertain in how many of them merit systems of promoting teachers are in force, and their opinions as to the difficulties of operating such a system. The writer says that the general feeling is that the merit system is theoretically right. Suggests a score card for rating teachers.

2296. **Teachers and marriage.** [By] A married woman teacher. *American school-board journal*, 61 : 33-34, December 1920.  
Discusses some of the reasons that have been advanced against the married woman teaching.
2297. **Toledo, Ohio. Board of education.** Report of the salary information committee of the Toledo teachers' association. Toledo, Ohio, Board of education, 1920. 39 p. 8°.  
Gives data from 27 cities showing the maximum and minimum salaries of elementary class room teachers, elementary principals, kindergarten teachers, elementary manual training teachers, elementary sewing and domestic science teachers, high school principals, high school teachers, and assistant principals, heads of departments and supervisors.
2298. **Tyler, H. W.** Academic freedom. *Educational review*, 60 : 386-93, December 1920.  
Says that a standard procedure should be agreed upon, which will protect the individual teacher against injustice and protect the administration against the imputation—just or unjust—of prejudice or arbitrary action.
2299. **Washburne, Clinton W.** A frictionless rating scale for teachers. *American school board journal*, 61 : 35-36, December 1920.  
The teachers' rating plan in use in Winnetka, Ill. The ratings are determined partly by definite improvement shown by the pupils in the fundamental subjects and partly by the judgment of the superintendent based upon outstanding, concrete facts.
2300. **Wiley, George M.** Efficiency in the teaching service. *Journal of the New York state teachers' association*, 7 : 225-27, November 1920.  
The writer emphasizes the importance of professional spirit as a factor in professional growth. Reprinted from the Bulletin to the schools published by the University of the state of New York, September 15, 1920.

### HIGHER EDUCATION.

2301. **American association of collegiate registrars.** Proceedings of the tenth annual meeting . . . Washington, D. C., April 13-15, 1920. 258 p. 8°.  
(C. S. Marsh, secretary, Northwestern University, Evanston, Ill.)  
Contains: 1. P. P. Claxton. The new plan of cooperation between the Bureau of education and the state departments of education in the collection of statistics, and the interest of college registrars therein, p. 13-22. 2. S. P. Capen. The registrar's office a barometer of educational tendencies, p. 24-30. 3. R. W. Cooper. Character and kind of work accomplished at the A. E. F. University in France, p. 31-41. 4. J. J. Champenois. American degrees and French diplomas, p. 44-59. 5. C. M. McConn. The status and salaries of collegiate registrars, p. 60-83. 6. E. J. Mathews. The cause and possible remedies of the high rate of student mortality p. 81-92. 7. W. A. Payne. What information should a college president be able to get on short notice from the registrar's office, p. 93-99. 8. Mrs. Lella G. Hartman. Grading systems, p. 101-17. 9. Isabel Wolcott. A report on admission requirements in 147 colleges and universities in the American association of collegiate registrars, p. 118-21. 10. Alan Bright. Changes in admission requirements from 1910 to 1920, p. 122-23. 11. W. M. Hillegast. Methods of controlling absences, p. 124-28. 12. Adah Alexander. Statistical report on standard four-year high schools in the United States, with the number of graduates from these schools in 1918-1919; on standard colleges and universities in the United States, with the freshmen enrollment in these schools in 1919-1920, p. 129-47. 13. J. A. Gannett. Invoice of a properly equipped registrar's office, p. 148-49. 14. J. W. Craven. Educational publicity, p. 153-71. 15. Raymond Walters. A study of the collegiate records of eminent engineers, p. 172-80. 16. E. B. Pierce. Some suggested standardizations, p. 181-89. 17. M. G. Frampton. The opportunities of registrars to influence standards, p. 192-205. 18. G. G. Chambers. Intelligence tests for admissions, p. 206-13. 19. O. L. Elliott. The registrar in action, p. 217-24.
2302. **Association of American universities.** Index of proceedings and addresses of the first twenty annual conferences, 1900-1918. Pub. by the Association, 1920. 30 p. 8°.
2303. **Bolser, Claude M.** Have you a director of publicity in your school? *School and society*, 12 : 513-17, November 17, 1920.  
The writer says that every school of higher learning should employ a person acquainted with educational method, with publicity theory and familiar with business, industrial and educational needs.

2304. **Bruce, Philip Alexander.** History of the University of Virginia, 1819-1919; the lengthened shadow of one man. Centennial ed. Vol. 1-2. New York, The Macmillan company [1920] 2 v. fronts. 8°. These two volumes carry the narrative from the founding of the university on through the "formative and experimental stage," 1825-1842.
2305. **Burton, Marion Le Roy.** Reasons for a national survey of state universities. School life, 5 : 1-2, 14, December 1, 1920. Read before the annual meeting of the National association of state universities, Washington D. C., 1920.
2306. **Cornell university.** Twenty-eighth annual report by President Schurman 1919-1920, with the comptroller's report, and reports of the deans of colleges the registrar, the librarian, and other officers. Ithaca, N. Y., Cornell university, 1920. 59, xci p. 8°. (Official publication, vol. xi, no. 19, November 1, 1920.) The "valedictory" report of President Schurman.
2307. **Gerry, Henry Lester.** College entrance examination board questions in chemistry. School science and mathematics, 20 : 845-50, December 1920.
2308. **Hutchins, William J.** Berea's changeless task in times of change. American schoolmaster, 13 : 325-34, November 15, 1920. Inaugural address by President Hutchins at Berea College, October 22, 1920.
2309. **Johnson, Burges.** Educational elephantiasis. North American review, 212 : 803-08, December 1920. Says that the best possible antidote so far discovered for the germ of educational elephantiasis is the small college.
2310. **Leighton, Joseph A.** University government. Educational review, 60: 363-75, December 1920. Emphasizes the necessity of more faculty participation in university government. Reviews the general status of the university, and criticizes the attempt to determine the efficiency of the university in terms of number of student hours per instructor, percentage of passes and failures, quantity of productive work, etc., which the writer pronounces to be "the idolatrous worship of the mechanical god of quantity production." Lays stress on the influence of dynamic teachers and creative scholars.
2311. **MacCracken, John Henry.** College and commonwealth, and other educational papers and addresses. New York, The Century co., 1920. 420 p. 8°. A collection of addresses and papers prepared by President MacCracken, of Lafayette college, for various occasions. The topics relate mainly to sundry phases of college administration and college life. One paper is included on the subject of a National department of education.
2312. **Michigan alumnus**, vol. 27, no. 2, November 1920. (Addresses delivered at the inauguration of Marion LeRoy Burton) Contains: 1. W. Walker: The integration of the university, p. 91-96. 2. R. E. Vinson: Academic freedom and social responsibility, p. 96-99. 3. Roscoe Pound: The place of the university in training for citizenship, p. 99-101. 4. S. P. Capen: The cost of higher education and its bearing on taxation, p. 101-105. 5. V. L. Kellogg: The present status of research in American universities, p. 106-108. 6. A. R. Hill: The junior college movement, p. 108-10. 7. F. P. Fish: Cooperation with the vital activities of life, p. 110-13. 8. C. L. Sommers: The salary problem, p. 117-22. No. 3 was published also in School and society, 12: 605-13, November 27, 1920, and in Harvard Alumni bulletin, 23: 217-22, December 2, 1920. No. 8 has been reprinted separately.
2313. **Miller, William O.** Plea for administrative coordination. Pennsylvania gazette, 19 : 237-39, December 3, 1920. A paper read before the Association of financial officers of colleges and universities of the middle states and Maryland, November 27, 1920. Suggests an ideal scheme of organization for university administration.

2314. **Minnesota. University. Survey commission. Report of the Survey commission. I. The growth of the University in the next quarter century.** Minneapolis, University of Minnesota, 1920. 50 p. 8°. (Bulletin of the University of Minnesota, vol. 23, no. 25, June 21, 1920.)  
This first report of the Survey commission was prepared by Rodney M. West and Dr. L. V. Koss.
2315. **Pritchett, Henry S.** The democracy of the American college. *Educational review*, 60 : 376-85, December 1920.  
Says that the democratization of college government must be found along social and moral lines rather than in an arbitrary rearrangement of its machinery.
2316. **Rigdon, Jonathan.** The college course. *Southern school journal*, 31 : 18-20, December 1920.  
Suggestions for a college course that rests upon psychology and imparts to the student the spirit of research combined with breadth of interest. A course that leads to individual efficiency and the ability to adjust one's self to his various social groups.
2317. **Santayana, George.** Character & opinion in the United States; with reminiscences of William James and Josiah Royce and academic life in America. New York, Charles Scribner's sons, 1920. ix, 233 p. 8°.   
CONTENTS.—1. The moral background.—2. The academic environment.—3. William James.—4. Joseph Royce.—5. Later speculations.—6. Materialism and idealism in American life.—7. English liberty in America.  
Composed mainly of lectures originally addressed to British audiences.
2318. **Shaw, J. P., jr.** Statistics of college graduates. Quarterly publication of the American statistical association, 17 : 335-41, September 1920.  
Results of a study made first, to estimate the number of male college graduates in this country at various dates holding degrees of A. B., B. S., Ph. B., or B. L., and the part proportion of males over 22 years of age who hold such degrees, and secondly, to estimate the number of graduates in the country at various dates holding degrees of law, medicine, or theology and to compare them with the reported number of lawyers, doctors, and clergymen.
2319. **Yale university.** Reports of the president, acting provost, and secretary of Yale university and of the deans and directors of its several schools and departments for the academic year 1919-20. New Haven, The University, 1920. 479 p. 8°. (Bulletin of Yale university, 16th series, no. 12, September 1920.)

#### SCHOOL ADMINISTRATION.

2320. **Alexander, Carter.** A larger state distributive school fund for Illinois. School and society, 12 : 565-76, December 11, 1920.  
An address before the State school board association and the State city superintendents' association at Moline, October 28, 1920.  
Tells how the early leaders in Illinois intended to support schools and how the present state school fund plans work, shows what other states are doing for state distributive school funds and how state school moneys should be distributed. Suggests how to secure money for the increase in the state distributive school fund.
2321. **Horn, Paul W.** How does a superintendent of schools earn his salary? *South-western school review*, 1 : 1-6, October 15, 1920.  
Says that the really vital thing in the use of the superintendent's time is his ability to distinguish between the things that are really vital in his work and those things that are not vital or at least non-essential.
2322. **Ingell, Harry A.** Business management for school boards. *American school board journal*, 61 : 42-44, December 1920.  
Some suggestions for business managers in providing for new school buildings.
2323. **Kato, Katsuji.** The modified Gary system for Japanese language schools. *Japan review*, 6 : 4-5, November 1920.  
A suggestion to educational authorities to adopt a modified Gary system in order that the Japanese language schools in the United States and in Hawaii may be brought under the direct supervision of the board of education in any given community and the children given due credit for their work.

2324. **Williams, Allan J.** What records are essential in a school system of 25 to 50 teachers? *American school board journal*, 61 : 54-55, December 1920.
2325. **Williamson, James W.** How Detroit enforces school attendance. *American schoolmaster*, 13 : 343-47, November 15, 1920.

### SCHOOL MANAGEMENT.

2326. **Clark, M. G.** The course of study a factor in efficient teaching. *School and home education*, 40 : 62-64, November 1920.  
Read before the Iowa superintendents' club, November 3, 1920.
2327. **Earle, Samuel O.** Faculty honor. *Educational review*, 60 : 394-406, December 1920.  
A discussion of student dishonesty in examinations, etc. Work of examiners.
2328. **Kent, B. A.** An experiment in the grading and placing of children. *American school board journal*, 61 : 30-32, December 1920.  
To be concluded in February 1921.
2329. **Zirkle, H. W.** Character and results of special rooms as conducted in the Whittier school (Denver, Colo.). *Elementary school journal*, 21 : 189-97, November 1920.  
Plan devised for caring for all the pupils according to their individual abilities. To care for children of varying abilities three distinct classes of rooms are maintained: (1) The regular rooms, caring for the great majority, those falling within the normal group; (2) a room for the "accelerates"; and (3) rooms for "retardates."

### SCHOOLHOUSES AND GROUNDS.

2330. **Egan, Joseph B.** Lack of system in the decoration of classrooms. *Education*, 41 : 248-52, December 1920.  
Discusses the subconscious influence upon children of a schoolroom adequately adorned with pictures, etc.

### SCHOOL HYGIENE AND SANITATION.

2331. **Grier, N. M.** The present day status and the future of public school physiology. *General science quarterly*, 5 : 43-48, November 1920.  
The possibilities of the high school course in physiology.
2332. **Rich, Katherine B.** Nutritional work in public schools. *Journal of the American medical association*, 75 : 1492-94, November 27, 1920.  
A further report of the work done under the supervision of the Board of education in the public schools of Chicago during the winter of 1919-20.



### PHYSICAL TRAINING.

2333. **Altmann, George J.** Physical efficiency for high school boys. *Mind and body*, 27 : 316-23, December 1920.  
Paper read before the American physical education association convention, April 7, 1920.
2334. **Lee, Roger I.** Bodily mechanics in Harvard freshmen. *American physical education review*, 25 : 337-42, November 1920.  
Read before the American physical education association, April 1920.
2335. **Whithan, Jessie I.** Physical efficiency in girls' high schools. *Mind and body*, 27 : 323-27, December 1920.  
Paper read before the American physical education association, April 7, 1920.

### PLAY AND RECREATION.

2336. **Bretnall, G. H.** Use and abuse of recess. *Virginia journal of education*, 14 : 131-33, December 1920.  
Gives suggestions for eliminating the harmful features of recess.

2337. **Fuller, Raymond G.** Play and work in childhood. American child, 2 : 262-70, November 1920.

The writer says that child idleness is not the alternative of child labor. For child labor there are several substitutes; schooling is one; play, especially supervised play, is another, and children's work is a third. Says that play is a childhood necessity and discusses play and work for children from the standpoint of racial heredity.

2338. **School and home (Ethical culture school, New York City)** Fall, 1920. 40 p. (Leisure time of the city child)

Contains: 1. Percival Chubb: Leisure and the unlesured child, p. 1-5. 2. Louise M. Welles: Suggestions for the leisure time of young children, p. 6-9. 3. E. H. Arnold: Home equipment for athletic recreation, p. 9-11. 4. Julie W. Neumann: The joy of reading, p. 11-13. 5. Rhoda H. Todd: The psychological effect of the movies upon children, p. 14-16. 6. Ellen E. Shaw: Nature study and the city child, p. 19-22. 7. A. Heymann: Day trips in the country, p. 22-26. 8. From the high school student's point of view, p. 28-30. 9. David Beck: The twenty-four hour program, p. 30-33.

### SOCIAL ASPECTS OF EDUCATION.

2339. **Baker, George Marshall.** Some viewpoints of the 20th century school. Kentucky high school quarterly, 4 : 2-11, October 1920.

An address before the Maysville community club, April 13, 1920.

The socialization of the modern school and its closer relationship to society.

2340. **Hart, Joseph Kinmont.** Community organization. New York, The Macmillan company, 1920. 6 p. l., 3-230 p. 12°. (The social welfare library)

2341. **Jenkins, Elizabeth.** The home as an educational center. Church school, 3 : 160-61, January 1921.

### CHILD WELFARE.

2342. **Duke, Emma.** California the golden. American child, 2 : 333-56, November 1920. illus.

Child labor in California.

2343. **Hoover, Herbert.** A program for American childhood. Mother and child, 1 : 147-52, December 1920.

Address at the annual meeting of the American child hygiene association, St. Louis, October 11, 1920.

2344. **Lane-Clayton, Janet E.** The child welfare movement. London, G. Bell and sons Ltd., 1920. 341 p. 12°.

### MORAL AND RELIGIOUS EDUCATION.

2345. **Chapin, Lucy Stock.** The cradle roll of the church school. Boston, Chicago, The Pilgrim press [1920] 106 p. front. 12°.

2346. **Slaterry, Margaret.** The highway to leadership. Boston, Chicago, The Pilgrim press [1920] 143 p. 12°.

### MANUAL AND VOCATIONAL TRAINING.

2347. **Baldwin, Leland DeWitt.** Industrial training in the Philippine Islands. Manual training magazine, 22 : 169-71, December 1920.

2348. **McKinney, James.** The foreman and his job. Industrial-arts magazine, 9 : 461-64, December 1920.

Discusses the different phases of the foreman's job: production, supervision and instruction.

2349. **Osias, Camilo.** The Dunwoody industrial institute. Philippine education, 17 : 187-89, 228, November 1920.

The founding and growth of Dunwoody industrial institute at Minneapolis, and some conclusions which may be of practical benefit to teachers in the Philippine Islands.



2350. **U. S. Federal board for vocational education.** Fourth annual report to Congress . . . 1920. Washington, Government printing office, 1920. 542 p. 8°.

Sect. I.—Report of the Vocational education division. Promotion of vocational education in the states.—Sect. II.—Report of the rehabilitation division. Vocational rehabilitation and return to civil employment of disabled soldiers, sailors, and marines.—Sect. III.—Report of the industrial rehabilitation division. Vocational rehabilitation and return to employment of persons disabled in industry or otherwise.

2351. **Whitford, William G.** Determining aims of art instruction for the secondary school. School review, 28 : 757-71, December 1920.

Discusses the objectives and plan for a course of study in art for the secondary school. Gives an extensive outline for course of study.

### VOCATIONAL GUIDANCE.

2352. **Krebs, H. C.** Vocational guidance in rural schools. Education, 41 : 253-59, December 1920.

Says that the person best qualified to give vocational guidance in rural schools is the supervising principal.

### HOME ECONOMICS.

2353. **Arnold, Sarah Louise.** Education the defense of the American home. N. E. A. bulletin, 9 : 73-75, December 1920.

Address before the general session of the National education association, Salt Lake City, Utah, July 8, 1920.

The necessity of instruction in home building in order that the traditions of America may be maintained.

### COMMERCIAL EDUCATION.

2354. **Hamilton, R. L.** Commercial work in the junior high school. Junior high clearing house, 1 : 24-31, October-November 1920.

Address delivered at the Iowa state teachers' association, Des Moines, November 5, 1920.

2355. **Woolen, Evans.** Education for business. Educational issues, 1 : 199-202, November 1920.

The writer thinks that business needs several things more than it needs vocational training. First it needs character, second, it needs the capacity to think with concentration and precision, third, it needs health that brings to the service of business vigor and vitality. If to these is added the habit of work then nothing else much matters.

### PROFESSIONAL EDUCATION.

2356. **American automobile association, Washington, D. C.** Highways green book, 1920. First annual edition. Washington, D. C., American automobile association [1920]

Highway engineering education, p. 423-31. Gives courses in highway engineering offered by schools, colleges and departments of engineering, 1918-1919.

2357. **Goeckel, Henry J.** Scientific courses for nurses. American journal of nursing, 21 : 152-54, December 1920.

2358. **Hollis, Ira N.** Engineering societies and engineering education. Engineering education, 11 : 94-135, November 1920.

Discussion, p. 135-38.

The function of societies in education and the best method of making them useful to educational institutions.

2359. **Wormser, I. Maurice.** The problem of evening law schools. American law school review, 4 : 544-47, November 1920.

Speaks of the advisability of an evening law school. From his own experience the writer is convinced that they should not be eliminated. Refutes criticisms that have been made against the evening law school.

**CIVIC EDUCATION.**

2360. **Brooks, Thomas D.** An evaluation of exercises in civics textbooks. School review, 28 : 779-87, December 1920.  
A critique of ten textbooks in civics widely used in the high schools of the United States.
2361. **Whitman, W. G.** Problems of civic science. General science quarterly, 5 : 19-31, November 1920.  
Paper given at meeting of the New York state science teachers' association, November 23, 1920.  
A program of civic science for junior high schools. Suggests problems which touch home life, community life, and national life.

**AMERICANIZATION.**

2362. **Cohen, I. David.** The gateway to English. A textbook in Americanism. Chicago, New York, Rand McNally & company [1920] 360p. illus. 13°. Pages 267 to 360 are devoted to suggestions for teachers in Americanizing the foreigner.
2363. **Connecticut.** State board of education. Classes for foreign-born adults. Organization and maintenance. Hartford, Conn., State board of education, 1920. 33p. 8°. (Americanization bulletin, no. 1, series 1920-1921)
2364. **Harvey, Emma Bates.** Americanization—the mothers of the race. Journal of education, 92 : 539-42, December 2, 1920.  
Some suggestions for Americanization of foreign mothers through their children.

**EDUCATION OF SOLDIERS.**

2365. **Gray, Beryl.** The United States' plans for human salvage. Bulletin of the Pan American union, 51 : 576-89, December 1920.  
An illustrated account of what is being done for the rehabilitation of the disabled ex-service men.

**EDUCATION OF WOMEN.**

2366. **Cowper, Mary O.** The education of women in Latin America. South Atlantic quarterly, 19 : 350-59, October 1920.
2367. **U. S. Women's bureau.** . . . Industrial opportunities and training for women and girls. Washington, Government printing office, 1920. 48p. 8°. (Bulletin of the Women's bureau, no. 13)

**EDUCATION OF BLIND AND DEAF.**

2368. **American association of instructors of the blind.** Twenty-fifth biennial convention, held at Overlea, Maryland, June 21-25, 1920. 103p. 8°. (S. M. Green, secretary, St. Louis, Mo.)  
Contains: 1. S. P. Hayes: Mental and educational survey in seven schools for the blind, p. 10-17. 2. Buford Johnson: Survey of schools, p. 17-18. 3. H. M. McManaway: Tests and measurements, p. 19-20. 4. C. A. Hamilton: What our graduates do, p. 23-25. 5. Mary B. Schoonmaker: Arithmetic, p. 25-28. 6. Claudia Potter: Use of the Courtis tests, in arithmetic, p. 28-31. 7. B. P. Chapple: What is to be done with the feeble-minded blind? p. 31-34. 8. Mrs. Winifred Hathaway: Conservation of vision classes in the public schools, p. 34-37. 9. T. S. McAloney: Conservation of vision classes in residential schools for the blind, p. 37-39. 10. I. S. Wampler: What efforts should be made on the part of the state or schools, singly or co-operatively, toward securing scholarships for our graduates in special and professional schools? p. 41-46. 11. L. M. Wallace: A national vocational institute for the blind, p. 52-55. 12. O. H. Burritt: What has work for the war-blinded soldier taught us that we can with profit incorporate into our school work? p. 56-59. 13. E. E. Allen: Report of the committee on efficiency, p. 60-65. 14. Minnie Hicks: Teaching the beginner to read and write Braille, p. 66-69. 15. R. W. Woolston: The social education of blind children. How can we train them to take their normal places in their home communities? p. 69-72.

2369. **Blankenship, Ota.** Distinctive features of schools for the deaf. No. 10, The Nebraska school. Silent worker (Trenton, N. J.) 33 : 75-77, December 1920. illus.

Other articles in this series are No. 7, The Colorado school, by H. M. Habart; No. 8, The Clarke school at Northampton, by Mary C. Goddard; No. 9, The Pennsylvania institution for the deaf and dumb, Mt. Airy, Philadelphia, by James A. Weaver. No. 7 is in the Silent worker for April, no. 8 in the June number, and no. 9 in the July 1920 issue.

2370. **Sensenig, Barton.** Training for number work. Volta review, 22 : 767-74, December 1920.

Discussion: p. 774-78.

The author is an instructor in the Mount Airy school for the deaf, Mount Airy, Philadelphia, Pa.

### EDUCATION EXTENSION.

2371. **Nusbaum, Louis.** The organization of continuation schools in Philadelphia. Educational foundations, 32 : 111-13, October 1920.  
Attendance of pupils, the teachers, methods of teaching, etc.

### LIBRARIES AND READING.

2372. **Cromwell, Otelia.** A question of motive. English journal, 9 : 509-18, November 1920.

A plan for supplementary reading in English the purpose of which was neither to teach literature as such nor composition in its restricted sense but to awaken if possible an interest in books, an interest which would persist beyond the requirements of the course and the narrow limits of the schoolroom.

2373. **Crothers, Samuel McChord.** The perils of the literate. Atlantic monthly, 126 : 751-60, December 1920.

This article recognizes the value of wide reading, but points out how important it is that readers should use their own minds in regard to the subject in hand.

2374. **DeMille, A. E.** Desultory remarks on some recent books. English leaflet, 20 : 2-13, December 1920.

Modern reading for the English teacher.

2375. **Faguet, Emile.** The art of reading; summarized by Theodore W. Koch. Public libraries, 25 : 557-59, December 1920.

Read at the meeting of the Illinois library association. Springfield, Ill., October 1920.

2376. **Grayson, Cary T.** Books as a mental diversion. Bookman, 52 : 291-95, December 1920.

Properly selected books have a very real therapeutic value for certain patients while recuperating from nervous breakdown. In this article Dr. Grayson relates how President Wilson has found benefit in reading suitable light literature.

2377. **Rice, O. S.** Lessons on the use of books and libraries; a textbook for schools and a guide for the use of teachers and librarians. Chicago, New York, Rand McNally & company [1920] xvii, 178p. illus. 12°.

2378. **Roe, Annabel C. and Howard, Mary L.** Ten book lists for one-teacher schools. Boston, Wright & Potter printing co., 1920. 11p. 8°.

Some suggestions for teachers in adding books to their school book shelves. The subjects aim to cover the ordinary interests of school with the exception of arithmetic.

### BUREAU OF EDUCATION: RECENT PUBLICATIONS.

2379. Salaries of principals of high schools; by William T. Bawden. Washington, 1920. 15 p. (Bulletin, 1920, no. 44)

2380. A survey of education in Hawaii; made under the direction of the Commissioner of education. Washington, 1920. 408 p. plates, graphs, tables. (Bulletin, 1920, no. 16)

**PERIODICALS REPRESENTED IN THIS RECORD, OCTOBER, 1920, TO  
JANUARY, 1921.**

- Allgemeine deutsche lehrerzeitung, Berlin, Germany.  
 America, 59 East Eighty-third Street, New York, N. Y.  
 American annals of the deaf, Washington, D. C.  
 American child, 105 East Twenty-second Street, New York, N. Y.  
 American city, 93 Nassau Street, New York, N. Y.  
 American cookery, 221 Columbus Avenue, Boston, Mass.  
 American education, 50 State Street, Albany, N. Y.  
 American journal of nursing, 2419-2421 Greenmount Avenue, Baltimore, Md.  
 American journal of physiology, Baltimore, Md.  
 American journal of public health, 126 Massachusetts Avenue, Boston, Mass.  
 American journal of school hygiene, State Normal School, Worcester, Mass.  
 American journal of sociology, University of Chicago Press, Chicago, Ill.  
 American law school review, St. Paul, Minn.  
 American machinist, Tenth Avenue and Thirty-Sixth Street, New York, N. Y.  
 American physical education review, 93 Westford Avenue, Springfield, Mass.  
 American review of reviews, 30 Irving Place, New York, N. Y.  
 American school, P. O. Box 134, Milwaukee, Wis.  
 American school board journal, 354 Milwaukee Street, Milwaukee, Wis.  
 American schoolmaster, State Normal School, Ypsilanti, Mich.  
 American teacher, 225 Fifth Avenue, New York, N. Y.  
 Arkansas teacher, Little Rock, Ark.  
 Atlantic monthly, 8 Arlington Street, Boston, Mass.  
 Bookman, 244 Madison Avenue, New York, N. Y.  
 Boston medical and surgical journal, 126 Massachusetts Avenue, Boston, Mass.  
 Bulletin of high points, Board of Education Building, New York, N. Y.  
 Bulletin of the Pan American union, Washington, D. C.  
 California taxpayers' journal, San Francisco, Cal.  
 Catholic educational review, Washington, D. C.  
 Chicago schools journal, Chicago Normal College, Chicago, Ill.  
 Child, London, England.  
 Church school, 150 Fifth Avenue, New York, N. Y.  
 Classical weekly, Barnard College, New York, N. Y.  
 Colorado school journal, Denver, Colo.  
 Columbia alumni news, Columbia University, New York, N. Y.  
 Contemporary review, 249 West Thirteenth Street, New York, N. Y.  
 Current education, Teachers Publishing Company, Philadelphia, Pa.  
 Dental cosmos, Twelfth and Chestnut Streets, Philadelphia, Pa.  
 École du travail, Paris, France.  
 Education, 120 Boylston Street, Boston, Mass.  
 Educational administration and supervision, Warwick and York, Inc., Baltimore, Md.  
 Educational film magazine, 33 West Forty-Second Street, New York, N. Y.  
 Educational foundations, 31-33 East Twenty-Seventh Street, New York, N. Y.  
 Educational issues, 46 North Pennsylvania Street, Indianapolis, Ind.  
 Educational news bulletin, Madison, Wis.  
 Educational record, 818 Connecticut Avenue, Washington, D. C.  
 Educational review, George H. Doran Company, New York, N. Y.  
 Educational review, Fredericton, New Brunswick.  
 Educator-journal, 403 Newton Claypool Building, Indianapolis, Ind.  
 Elementary school journal, University of Chicago, Chicago, Ill.  
 Engineering education, University of Pittsburgh, Pittsburgh, Pa. (F. L. Bishop, editor).  
 English journal, University of Chicago Press, Chicago, Ill.

- English leaflet, Newtonville, Mass.  
 Fortnightly review, 249 West Thirteenth Street, New York, N. Y.  
 Forum, 32 West Fifty-eighth Street, New York, N. Y.  
 The Friend, Honolulu, Hawaii.  
 General science quarterly, Salem, Mass.  
 Geographical teacher, London, England.  
 Harvard alumni bulletin, Boston, Mass.  
 Harvard graduates' magazine, Exchange Building, Boston, Mass.  
 Harvard law review, Cambridge, Mass.  
 High school journal, Chapel Hill, N. C.  
 Hispanic American historical review, Baltimore, Md.  
 Historical outlook, McKinley Publishing Company, Philadelphia, Pa.  
 Home and school guest, Stroudsburg, Pa.  
 Idaho teacher, Boise, Idaho.  
 Illinois association of teachers of English bulletin, Urbana, Ill.  
 Industrial-arts magazine, 129 Michigan Street, Milwaukee, Wis.  
 Industry, Boston, Mass.  
 Inter-America, Doubleday, Page and Company, New York, N. Y.  
 Inter-Mountain educator, Missoula, Mont.  
 Japan review, University of Chicago, Chicago, Ill.  
 Journal of applied psychology, Clark University, Worcester, Mass.  
 Journal of delinquency, Whittier State School, Whittier, Cal.  
 Journal of education, 6 Beacon Street, Boston, Mass.  
 Journal of education and school world, London, England.  
 Journal of educational psychology, Warwick and York, Inc., Baltimore, Md.  
 Journal of educational research, Public School Publishing Company, Bloomington, Ill.  
 Journal of experimental psychology, Princeton, N. J.  
 Journal of geography, State Normal School, Mankato, Minn.  
 Journal of home economics, 1211 Cathedral Street, Baltimore, Md.  
 Journal of political economy, University of Chicago Press, Chicago, Ill.  
 Journal of the American medical association, 535 North Dearborn Street, Chicago, Ill.  
 Journal of the National education association, 1201 Sixteenth Street, NW., Washington, D. C.  
 Journal of the New York state teachers' association, 5 South Water Street, Rochester, N. Y.  
 Junior high clearing house, Sioux City, Iowa.  
 Kansas teacher, Topeka, Kans.  
 Kentucky high school quarterly, Lexington, Ky.  
 Kindergarten and first grade, Springfield, Mass.  
 Library journal, 62 West Forty-fifth Street, New York, N. Y.  
 Manual training magazine, Manual Arts Press, Peoria, Ill.  
 Mathematics teacher, 41 North Queen Street, Lancaster, Pa.  
 Mental hygiene, 27 Columbia Street, Albany, N. Y.  
 Michigan alumnus, Ann Arbor, Mich.  
 Middle-west school review, Omaha, Nebr.  
 Mind and body, New Ulm, Minn.  
 Missions, Ford Building, Boston, Mass.  
 Missouri school journal, Jefferson City, Mo.  
 Modern language journal, 68th and Park Avenue, New York, N. Y.  
 Modern medicine, 58 East Washington Street, Chicago, Ill.  
 Monatschrift für höhere schulen, Berlin, Germany.  
 Mother and child, 1211 Cathedral Avenue, Baltimore, Md.

- Moving picture age, 418 South Market Street, Chicago, Ill.  
 Nation, 20 Vesey Street, New York, N. Y.  
 National association of corporation training bulletin, 130 East Fifteenth Street, New York, N. Y.  
 National civic federation review, 1 Madison Avenue, New York, N. Y.  
 National education association bulletin, 1201 Sixteenth Street, Washington, D. C.  
 National school digest, 1405 University Avenue, S. E., Minneapolis, Minn.  
 Nebraska farmer, Lincoln, Nebr.  
 New republic, 421 West Twenty-First Street, New York, N. Y.  
 Nineteenth century and after, 249 West Thirteenth Street, New York, N. Y.  
 Normal instructor and primary plans, Dansville, N. Y.  
 North American review, 171 Madison Avenue, New York, N. Y.  
 Ohio teacher, Columbus, Ohio.  
 Oklahoma school herald, Tulsa, Okla.  
 Oregon teachers monthly, Salem, Oreg.  
 Outlook, 287 Fourth Avenue, New York, N. Y.  
 Parents' review, London, England.  
 Pennsylvania gazette, University of Pennsylvania, Philadelphia, Pa.  
 Pennsylvania school journal, Lancaster, Pa.  
 Philippine education, Manila, Philippine Islands.  
 Pittsburgh school bulletin, 1003 Bessemer Building, Pittsburgh, Pa.  
 Playground, 1 Madison Avenue, New York, N. Y.  
 Princeton alumni weekly, Princeton, N. J.  
 Public libraries, Library Bureau, Chicago, Ill.  
 Quarterly journal of the University of North Dakota, University, N. Dak.  
 Quarterly publication of the American statistical association, Concord, N. H.  
 Red cross magazine, 124 East Twenty-Eighth Street, New York, N. Y.  
 Religious education, 1440 East Fifty-Seventh Street, Chicago, Ill.  
 Revista de instruccion pública, Habana, Cuba.  
 Revue des deux mondes, Paris, France.  
 Revue internationale de l'enseignement, Paris, France.  
 Revue pédagogique, Paris, France.  
 Revue politique et parlementaire, Paris, France.  
 Rivista pedagogica, Rome, Italy.  
 Rural education, Aberdeen, S. Dak.  
 Safeguarding America against fire, 76 William Street, New York, N. Y.  
 School, 154 Fifth Avenue, New York, N. Y.  
 School, Toronto, Canada.  
 School and home, Ethical Culture School, New York, N. Y.  
 School and home education, Bloomington, Ill.  
 School and society, The Science Press, Garrison, N. Y.  
 School arts magazine, 25 Foster Street, Worcester, Mass.  
 School bulletin, Syracuse, N. Y.  
 School life, Bureau of Education, Washington, D. C.  
 School music, Keokuk, Iowa.  
 School music review, London, England.  
 School review, University of Chicago, Chicago, Ill.  
 School science and mathematics, Mount Morris, Ill.  
 Schools and people, 1802 South Racine Avenue, Chicago, Ill.  
 Science, The Science Press, Garrison, N. Y.  
 Scientific monthly, The Science Press, Garrison, N. Y.  
 Sierra educational news, San Francisco, Cal.  
 Silent worker, Trenton, N. J.  
 Smith alumnae quarterly, Concord, N. H.



Social hygiene, 105 West Fortieth Street, New York, N. Y.  
Social progress, 205 West Monroe Street, Chicago, Ill.  
South Atlantic quarterly, Trinity College, Durham, N. C.  
Southern school journal, Louisville, Ky.  
Southern school work, Alexandria, La.  
Southern workman, Hampton, Va.  
Southwestern school review, Austin, Texas.  
Survey, 112 East Nineteenth Street, New York, N. Y.  
Teachers college record, Teachers College, Columbia University, New York, N. Y.  
Teacher's world, London, England.  
Teaching, Kansas State Normal School, Emporia, Kans.  
Techne, State Normal School, Pittsburgh, Kans.  
Texas outlook, Fort Worth, Texas.  
Training school bulletin, Vineland, N. J.  
Unpartizan review, 19 West Forty-Fourth Street, New York, N. Y.  
Virginia journal of education, Richmond, Va.  
Volta review, Volta Bureau, Washington, D. C.  
Weekly review, 140 Nassau Street, New York, N. Y.  
Western journal of education, 324 Phelan Building, San Francisco, Cal.  
Wisconsin journal of education, Madison, Wis.  
World's work, Doubleday, Page and Company, Garden City, N. Y.  
Yale alumni weekly, Yale Station, New Haven, Conn.  
Zeitschrift für pädagogische psychologie und experimentelle pädagogik, Leipzig, Germany.





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DEPARTMENT OF THE INTERIOR

U.S. BUREAU OF EDUCATION

BULLETIN, 1921, No. 2

# SURVEY OF THE SCHOOLS OF WILMINGTON, DELAWARE

## PART 1

- I. THE EDUCATIONAL BACKGROUND
- II. SCHOOL ORGANIZATION, SUPERVISION, AND FINANCE
- III. A SCHOOL BUILDING PROGRAM FOR WILMINGTON



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1921

## BULLETIN OF THE BUREAU OF EDUCATION FOR 1920.

- No. 1. The problem of mathematics in secondary education. A report of the Commission on the Reorganization of Secondary Education, appointed by the National Education Association.
2. Monthly record of educational publications, January, 1920.
3. Private high schools and academies, 1917-18. Advance sheets from the Biennial Survey of Education in the United States, 1916-1918.
4. The problem of adult education in Passaic, N. J. Mrs. A. B. Fernandez.
5. Monthly record of educational publications, February, 1920.
6. Monthly record of educational publications, March, 1920.
7. Requirements for the bachelor's degree. Walton C. John.
8. Agricultural and mechanical colleges. Walton C. John.
9. The feasibility of consolidating the schools of Mount Joy Township, Adams County, Pa. Katherine M. Cook and W. S. Deffenbaugh.
10. Correspondence study in universities and colleges. Arthur J. Klein.
11. Statistics of State school systems, 1917-18. Advance sheets from the Biennial Survey of Education in the United States, 1916-1918. H. R. Bonner.
12. Training teachers for Americanization. John J. Mahoney.
13. Educational work of the Commercial Museum of Philadelphia. Charles R. Toothaker.
14. Monthly record of educational publications, April, 1920.
15. Monthly record of educational publications, May, 1920.
16. A survey of education in Hawaii.
17. Monthly record of educational publications, June, 1920.
18. Lessons in civics for the six elementary grades of city schools. Hannah M. Harris.
19. Statistics of public high schools, 1917-18. Advance sheets from the Biennial Survey of Education in the United States, 1916-1918. H. R. Bonner.
20. Salaries in universities and colleges in 1920. L. A. Kalbach.
21. Schools in the bituminous coal regions of the Appalachian Mountains. W. S. Deffenbaugh.
22. A school building program for Meriden, Conn.
23. A school building program for Gloucester, Mass.
24. Statistics of city school systems, 1917-18. Advance sheets from the Biennial Survey of Education in the United States, 1916-1918. H. R. Bonner.
25. Monthly record of educational publications, September, 1920.
26. Reorganization of science in secondary schools. A report of the Commission on the Reorganization of Secondary Education, appointed by the National Education Association.
27. Survey of the schools of Brunswick and of Glynn County, Ga.
28. Monthly record of educational publications—Index, February, 1919—January, 1920.
29. The national crisis in education—An appeal to the people.
30. State laws relating to education, enacted in 1918 and 1919. Wm. R. Hood.

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BUREAU OF EDUCATION

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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, December 30, 1920.*

SIR: I am transmitting herewith for publication as a bulletin of the Bureau of Education a report of the survey of the schools of Wilmington, Del., made by this bureau at the request of the properly constituted authorities of the city. The details of the agreement are set forth in the introduction. I am asking for its publication for the use of the citizens of Wilmington and of officials and students of education elsewhere.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

THE SECRETARY OF THE INTERIOR.





## INTRODUCTION.

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During March of 1920, by resolution of the Board of Education of Wilmington, a committee of 30 citizens of the city was appointed to make a survey of the public schools and of the system of education of the city. According to arrangement 10 members of the committee were appointed by the board of education, 10 by the city council, and 10 by the mayor of the city. In June the committee organized and appointed an executive committee of 9. The executive committee was directed to prepare a plan or program to be followed in making the investigation and survey and to report back to the general committee.

It was at this point the Commissioner of Education was asked what the Bureau of Education could do in furnishing experts to assist in the study, also to suggest what should be the scope of the survey, to state how long it would take to make the investigation and to make an estimate of its approximate cost. The committee stated that in its opinion three important points should be covered:

1. A report on the physical condition of the schoolhouses, with recommendations as to any changes for their improvement or betterment.
2. A report as to the business methods pursued by the board of education, with recommendations for improvement.
3. Investigation of the methods of instruction in the schools, as to courses, standards, etc., with recommendations for improvements, if any.

In reply, under date of July 2, the Commissioner of Education made the following statement:

The survey should cover:

1. A study of the schoolhouse situation, with recommendations for repairing the old buildings and making them more useful and more sanitary, replacing those out of use, and outlining a building program for the next 8 or 10 years.
2. A study of the organization of the board of education and its methods of work, with special relation to the business activities and to the schools through the superintendent and other officers.
3. A study of the organization of the schools and their administration under the direction of the superintendent, with recommendations for improvements.
4. The financing of the schools, the salaries of teachers and other school officers.
5. A study of the education, professional preparation, and experience of teachers, and the spirit of the teaching body.
6. A study of the courses of study and their adaptation to the needs of the city, with recommendations for their modification and improvement, and a statement of reasons for the same.

7. A study of methods of instruction, the results and standards, with recommendations.

As a background for all recommendations for improvements and readjustments it will be necessary to make a comprehensive study of the city as a community, its industries, the occupations of its people, and its life and ideals.

The Bureau of Education can undertake to make the survey for your committee on the following conditions:

1. That it be formally invited by your committee and that the invitation have the indorsement of the State superintendent of public instruction or the State board of education.

2. That the persons detailed to do the work shall have the hearty cooperation of your committee, the board of education, the superintendent of schools, and all others through whom information may be had, so that the work may be done in the most effective and economic way.

3. That the survey committee may be permitted to find the facts as they are, to publish them as they are found in so far as may be wise, and to make recommendations for improvements with some probability that they will have careful consideration.

4. That the Bureau of Education be permitted to publish the findings of the survey committee, with all conclusions and recommendations, as a bulletin of the bureau, first for distribution among the people of Wilmington and, second, for general distribution among students of education throughout the country.

5. That your committee pay the expenses of the survey, including the traveling and living expenses of persons employed in the survey and the honorarium of those whom it is necessary for me to employ from outside the staff of the bureau.

This last stipulation is necessary because the bureau has not a sufficient number of persons on its staff to make the survey without seriously interfering with the ordinary work of the bureau. The persons employed from the outside and paid by your committee will, of course, be employed with the approval of your committee.

Six thousand dollars will be an ample sum for all expenses of making the study and preparing the report. The printing will be done at the expense of the Federal Government.

It will be impossible for me to furnish any assistance from the Bureau of Education except on the foregoing conditions. The survey committee appointed by me would make its report to me as Commissioner of Education and I would make the report to your committee. Before making the final report your committee would have an opportunity of going over the report to see if we had made any mistakes as to findings or any misinterpretations.

I believe your schools begin in September. The survey could be made in October and November, and the report ready for printing by the middle or last of December.

Under date of August 10, the secretary of the executive committee notified the commissioner that all conditions had been met, and that he was instructed formally to invite the commissioner to undertake the survey of the schools along the general lines outlined in the commissioner's letter of July 2. He also stated that the board of education of the city of Wilmington had indorsed the invitation and that the members pledged themselves to cooperate in every way possible in the investigation.

## THE SURVEY COMMISSION.

To assist him in making this study, the Commissioner of Education appointed the following commission:

Frank F. Bunker, chief City Schools Division, Bureau of Education, director of the survey.

Thomas M. Balliet, specialist in educational theory and practice, ex-dean department of Education, New York University, New York, N. Y.

William T. Bawden, specialist in vocational education, Bureau of Education.

Ralph Bowman, specialist in municipal finance, Washington, D. C.

Mary Bradford, superintendent of schools, Kenosha, Wis.

Henrietta W. Calvin, specialist in home economics, Bureau of Education.

W. S. Deffenbaugh, specialist in city school administration, Bureau of Education.

F. B. Dresslar, specialist in school architecture, sanitation, buildings, and equipment, Bureau of Education.

Arthur W. Dunn, specialist in civic education, Bureau of Education.

Will Earhart, supervisor of music, public schools, Pittsburgh, Pa.

Alice Barrows Fernandez, specialist in social and industrial problems, Bureau of Education.

Florence C. Fox, specialist in primary grade education, Bureau of Education.

W. B. Ittner, consulting specialist in school architecture, St. Louis, Mo.

Marie L. Rose, associate director Child Health Organization of America, New York, N. Y.

George R. Twiss, professor secondary education and State high school inspector, Ohio State University, Columbus, Ohio.

Nina C. Van der Walker, specialist in kindergarten education, Bureau of Education.

The field work of the survey commission began on October 11 and ended on November 6. While the time for the examination of conditions was necessarily short, nevertheless through careful organization of the work and through frequent meetings of the staff for the discussion of every phase of the problem, definite and positive conclusions in which all concurred were very quickly reached. Although the commission as a whole considered every important activity of the work of the system, each member was detailed to the particular field of his interest. The reports of the members of the commission were organized by the director of the survey and transmitted to the Commissioner of Education for his approval.

Inasmuch as the citizens' committee desires to present to the General Assembly of Delaware which convenes on January 4, 1921, recommendations for legislation based upon the findings of the survey commission, the report is issued in two parts. Part I comprises that portion of the findings of the commission which deals with matters having to do with legislation, while Part II consists of the commission's discussion of the more strictly educational aspects of Wilmington's school problem.

The commission desires to express its appreciation of the courtesy and consideration universally shown its members by the members of the board of education, the superintendent of schools and his staff, by the officials of the city government, by the various civic bodies and welfare organizations, and by the citizens generally, many of whom were called upon individually for information concerning conditions. Without exception all cooperated to make the investigation as thorough and as efficient as the time would permit.

# **SURVEY OF THE SCHOOLS OF WILMINGTON, DELAWARE.**

## **Chapter I.**

### **THE EDUCATIONAL BACKGROUND.**

Educational discussion and progress in Delaware during the past four years have centered about the adoption and retention of a new school code for the State and about the question whether or not Wilmington shall adopt it, thereby becoming an integral part of the school system of the State. A sketch of the chief features of the new code and of Wilmington's relation to it is essential to a clear understanding of Wilmington's problems.

#### **THE DELAWARE SCHOOL CODE OF 1919.**

Recognizing that the school laws of Delaware had been enacted piecemeal, as emergencies dictated, during a period of many years; that, in consequence, they were lacking in cohesion and unity; and that, indeed, at many points they were actually contradictory, the Delaware General Assembly of 1917 created a public school commission, directing it "to study the educational situation in Delaware, to harmonize, unify, and revise the school laws and to evolve an improved and effective system of public instruction," and to report its findings to the general assembly. The General Education Board, of New York, was called upon to make the analysis and to formulate recommendations. Out of the study made by its experts there emerged a bill comprising the new school code which after six weeks of spirited debate in the legislature and throughout the State, resulting in important changes in the bill, became a law, in April, 1919, by the close margin of 1 vote in the senate and 7 votes in the house.

While without doubt in a number of its less important details the code of 1919 was legitimately open to criticism, nevertheless a careful analysis of the document discloses the fact that in its essential features it not only marks a distinct advance but it embodies many of those features of the laws of other States which have proved, under the strain of practice, to be sound and beneficial.

#### **IMPORTANT FEATURES OF THE 1919 SCHOOL CODE.**

1. *The State board of education.*—The new code provides that the governor shall appoint a board of five members, each member serving for five years. The members receive no salary, but receive \$10 a day for attendance upon board meetings; the aggregate annual sum received by each, however, it is stipulated shall not exceed \$120. This board appoints a State commissioner of education, who is the secretary and the executive officer of the board, and his professional

and clerical assistants. Upon the State board rests the responsibility of enforcing the law. To enable the board to accomplish this, it is empowered to remove for cause any school officer in the State, whether elected or appointed, and to appoint a successor for the unexpired term.

The code specifically charges the State board with the following duties: To determine the educational policies of the State and to enact rules and regulations for the administration of the public-school system which, when enacted, shall have the force of law; to exercise general control and supervision over the public schools of the State; to direct and develop public sentiment in support of public education; to conduct investigations relating to the educational needs and conditions of the State; to recommend desirable changes in existing laws; to decide all controversies arising from the administering of the public-school system; to prescribe rules and regulations for the hygienic, sanitary, and protective construction of school buildings, for the health and physical inspection of children, for the grading and standardizing of all public schools, for the examination of teachers, for the taking of a biennial school census, and for the enforcement of school attendance; to prescribe minimum courses of study in all public schools, the textbooks to be used, and the prices at which these shall be sold; to fix the conditions and requirements which must be met by high schools in order that they may receive State aid; to determine the date of the opening and closing of school terms, hours of daily session and holidays; to require all persons conducting private schools to make an annual report of school enrollment, attendance, and ages of children; to approve plans for all new school buildings; to approve all training courses for teachers; and to condemn any public-school building which violates its rules for sanitation and safety.

The old laws provided for a State board composed of seven members likewise appointed by the governor and for a State commissioner of education also appointed by the governor who was independent of the State board and liable to work at cross-purposes with it. In short the chief difference between the old and the new law respecting the State board lies in this that under the old law the State board has no power to enforce its policies, while its duties were so indefinitely set forth that many misunderstandings arose due to varying interpretations. Under the new code the duties of the board are specifically defined. It is also given power to enforce its policies. In consequence it can not, as before, shift or evade its responsibility.

2. *The State commissioner of education.*—Under the new code the State commissioner must be a graduate of a standard college; must have had two years' professional graduate work in some university and must have had not less than seven years' experience in teaching

and school administration. He is appointed by the State board of education and in function acts as the executive officer of the State board. While he is authorized by law to make recommendations to the State board on all matters affecting educational policies and public school affairs, he has no powers independent of the State board.

3. *County boards and superintendents.*—The new code provides for a county board, in each of the counties of Delaware, comprising three members elected by the people of the county outside the special districts. These boards are vested with authority to manage and control all public-school property; to act as trustees for any bequests made to the schools of the county or of a particular district; to maintain a "uniform, equal, and effective system of free public schools throughout the county" comprising both elementary and high schools, providing separate schools for white and colored children; to procure ample and suitable grounds, buildings, and equipment, subject to the standards fixed by the State board of education, for all the schools of the county; to prepare and submit a budget to the levy court which shall provide ample funds for school maintenance; to make and distribute annually a printed report covering the needs and accomplishments of the schools of the county; and to appoint a county superintendent of schools. The county board, in addition, may in its discretion, consolidate school districts; may remove a member of a local board of school trustees for cause and fill all vacancies; and it may suspend or remove for cause, subject to review under certain conditions by the State board, any principal, teacher, or other school officer within the county.

The executive officer of the county board under the new code is the county superintendent, whose duty it is to see that the school code, the rules, regulations, and policies of both the State board of education and the county board are carried into effect. He can be removed from office by the State board for cause.

Under the old laws both the county board and the superintendent were appointed by the governor of the State. They were independent of each other and were not obliged under the law to cooperate. The duties of the county board under the old laws were optional and perfunctory. These boards could advise and recommend, but they had no authority to carry their recommendations into execution.

4. *Special school districts.*—In the new code provision is made whereby certain cities, towns, and school districts designated by the general assembly may become special school districts provided they adopt the new school code, and whereby the State board is authorized and empowered to create other school districts. The governing body of such special districts shall be a board of education elected by the voters of the special districts. The duties of such a board correspond to those of a county board. The executive officer of such a board

comprises the superintendent, who is appointed by the board, and whose duties correspond in general to those of a county superintendent. Inasmuch as Wilmington has not adopted the Delaware school code, the city is not recognized under the code as a special district.

Before a city or district, under the code, may be declared a special school district it must have met the requirements laid down by the State board in respect to grounds, buildings, and equipment; to the extent of elementary and high school work offered; to the length of the school year and to the qualifications required of superintendent and teachers.

5. *Local school districts and committees.*—Probably in no particular is the new school code more nearly in line with progressive school practice generally than in the changes it creates in the functions and duties of the local district school committee. Under the old law the district was the school unit and the district committee was in large measure a law unto itself. In consequence, the largest variation in efficiency of control, as among the districts of the State, was reported. In scores of districts, it is authoritatively reported, the school buildings were neglected; neither were they supplied with needed furniture nor with proper equipment or adequate supplies. Again, it is reported, in many districts no financial accounting was ever made, and that committees permitted bills for various items of operating expense to go unpaid, thereby running their districts into debt. In many districts, too, bonds were issued without any provision being taken to reduce the bonded indebtedness. It is said that nearly \$300,000 of such old unpaid debts were turned over to the authorities under the new code to be paid out of taxes raised under the latter. Again, it is reported that under the old system many local boards in employing teachers held to no standard of professional qualifications and, indeed, that many were appointed solely on grounds of personal relationships. Furthermore, that in many instances salaries were so low that only those possessing the poorest qualifications could be secured or retained.

One important reason why the district plan of school organization, wherever it has obtained, has always worked out in just this way lies in the fact that good schools with well-trained and well-qualified teachers, equipped with modern aids to education, cost money. As money must be raised by taxation and as most efforts to increase taxation even for providing those things which are of direct benefit are unpopular, the result is that often local district committees not only make little or no effort to secure adequate funds for their schools, but they actually shorten the school terms, neglect repairs, fail to provide adequate supplies, and hire the cheapest teachers in order not to excite the nerve that connects the community mind with its pocketbook.



Only through enlarging the unit of taxation and of administrative control can conditions be equalized, can haphazard and shiftless methods be eliminated, and the individual local school be made a part of a system that shall be administered as a whole by those professionally trained for such work.

The new school code is written upon the theory that the smallest unit for such purposes which is at all satisfactory is the county. In this the new code is in harmony with the trend of progressive practice throughout the country. Indeed, Delaware must abandon the local district system of taxation and of control if she wishes to give her children who live in the country educational advantages which are at all comparable with those afforded country and village children living in many other States.

Specifically, the new code withdraws from the local school committee the authority to levy and collect school taxes and places it in the hands of a levy court of the county. It also withdraws from them the authority to employ teachers and fix their salaries, vesting their appointment, subject to local approval, with the county board of education, elected by the people of the county. In respect to salaries the code provides a minimum salary schedule based on the grade of certificate and tenure of service. Any school unit, however, may go as far above this minimum limit as it chooses. In all other essential particulars the local district committee is vested with as much authority as it had under the old system.

6. *The colored schools.*—Under the old laws, local property taxes for the support of colored schools had to be raised wholly on property owned by the colored people; and those for the support of white schools had to be levied, likewise, exclusively on property owned by white people. The same segregation of poll taxes was also made. Naturally the method led to a wide variation in school-tax rates for colored and white schools not only among various communities, but within the same community as well. Except with respect to the segregation of poll taxes, it is believed that Delaware stood along among all the States of the Union in thus discriminating against the Negro.

Under the new code all property in the same school unit is subject to the same rate for the support of all schools, both white and colored, within the unit, as it should be, and poll taxes are not segregated.

The new code, in short, eliminates all of the discrimination against the Negro in educational matters which obtained under the old system.

7. *Compulsory school attendance.*—In respect, again, to putting on the statute books of Delaware a compulsory attendance law that goes to the heart of the matter, the new code is in line with the best practice of other States. While the law requires that all children between 7 and 14 years of age shall attend school during the entire period each

year the schools are in session, it also permits the proper officials to excuse, subject to the rules and regulations of the State board, pupils from attendance when it seems to be necessary. It also wisely provides that children 14, 15, or 16 years of age who have not completed the work of the eighth grade must attend school not less than 100 days during each school year. Violation of the law carries a penalty of a fine ranging from \$5 to \$50, and in default of payment, a jail sentence of from two to five days.

#### THE 1919 SCHOOL CODE VITIATED THROUGH AMENDMENTS.

The foregoing outline comprises the chief features of the new school code of 1919 by way of comparison and contrast with the system which it replaced. While, without doubt, in a number of details the school code needed modification to meet better some of the peculiar and unique conditions to be found in Delaware, nevertheless in its chief features it so closely follows progressive school practices which have stood the acid test of actual practice in other States that the commission has no hesitation in indorsing the main provisions of the code as it stood when first adopted. The new code, however, did three things which were especially obnoxious to those who were opposed to it. It materially increased taxes for school purposes. It increased the compulsory attendance period and put teeth in the attendance law, and it abolished the anarchy that existed in public-school administration and substituted therefor an orderly and organized system of school administration.

The law became effective in April, 1919. Gov. Townsend at once, under the new law, appointed the State board of education and the county board, which were to serve until the elections provided for in the code could be held.

#### THE SPECIAL SESSION OF 1920.<sup>1</sup>

At a special session of the legislature of Delaware in the spring of 1920 an act was passed transferring from the general fund of the State to the school fund \$490,000, to be used for the support and encouragement of the elementary public schools of the State for the school year 1920-21, and annually thereafter, and \$50,000 to pay for the transportation of pupils. It is said that it was thought by

<sup>1</sup> The form of this section of this report is somewhat different from its form in the galley proof, from which extracts have, I believe, been made by some of the Delaware newspapers. The change has been made by me to make the section conform more strictly to the facts as I have found them upon personal investigation, and to avoid all appearance of criticism of the methods of any person or group of persons. This is in keeping with the fixed policy of the Bureau of Education to adhere as strictly as possible to clear statements of pertinent facts and principles and to avoid all personalities. The bureau is interested only in conditions, and not in the processes by which they have come about, unless a knowledge and statement of these processes are necessary to insure improvement. It is not interested in local controversies, factional or otherwise.

some of those who favored the new school code that the relief from school taxes that would be afforded the taxpayers by this measure would allay much of the opposition to the code and allow the law to have a fair trial.

The act making this appropriation, however, changed the provisions of the code in other important respects. It made possible lowering of the qualifications required of teachers in that it authorized the State board of education to issue certificates of certain kinds on the results of examination, which under the code of 1919 were issued only to those who had taken a prescribed amount of normal-school or college work; reduced the term of county superintendents from two years to one year; the term of superintendents of special school districts from three years to one year; reduced the maximum rate of taxation for schools from  $1\frac{1}{2}$  per cent to 1 per cent of the assessed valuation of taxable property; restricted the powers of the State commissioner of education and of superintendents of counties and special districts; enlarged the powers of boards of school trustees in school attendance districts; fixed the minimum length of the school term at 180 days instead of 10 calendar months; released children 14, 15, and 16 years old who have not completed the eighth grade and who are regularly or legally employed to labor at home or elsewhere from attendance at school; reduced to 100 days required attendance of children when not regularly or legally employed to labor at home or elsewhere, and provided that in elections on the issuing of school bonds by county boards of education for grounds, buildings, and equipment suffrage shall be based not upon citizenship but upon a property qualification, giving to each voter one vote for every dollar or fractional part of a dollar assessed against him or her, according to the last assessment for school purposes for all the districts under the county board of education.

The transfer of the \$540,000 from the general fund of the State for the support of the schools and for transportation is wise in that it transfers a considerable portion of the burden of the support of schools from the smaller unit of the district to the larger unit of the State, thus tending to even the burden of support and the opportunities for education.

Most of the other provisions enumerated above in the code of 1920, and some others not here enumerated, are evidently much less wise and progressive than the corresponding provisions of the code of 1919.

#### THE PLAN OF WEIGHTED VOTES.

The amendment by which a person's voting power was made to turn upon the value of his property is one of the most remarkable laws ever placed on the statute books of any State. The commission believes it to be entirely unique and without precedent in this

country. Certainly the spirit of American democracy requires in matters of this kind recognition of men rather than of money. The law is so unusual as to deserve quoting. Pertinent extracts follow:

At said election [special elections held to vote school bonds] every person paying school taxes in any of the said districts shall be entitled to vote and shall have one vote for every dollar or fractional part of a dollar assessed against him or her according to the last assessment for school purposes for all the districts under the county board of education.

At each voting place as aforesaid there shall be exposed in convenient places for inspection by the voters lists showing the amount of the total assessment in all the districts under the county board of education, according to the last assessment for school purposes of each voter entitled to vote at such place.

No ballot shall be counted unless it shall be endorsed with the name of the voter and the number of votes to which he or she is entitled according to the last school assessment, except that if a voter inadvertently shall cast a ballot claiming a greater or less number of votes than he or she shall be entitled to cast, by endorsing same erroneously on the ballot, or shall omit to claim his or her appropriate number of votes, the election officers shall before counting the said ballot correct same by endorsing the number of votes correctly. It shall be no objection to any ballot that the endorsement thereon is not in the handwriting of the voter depositing the same.

In other words, the man who pays \$1 in taxes is entitled to 1 vote; the man who pays \$500 in taxes is entitled to 500 votes. Under this arrangement of weighted votes there are doubtless many districts in Delaware in which one man, or a very few men, can outvote all the other citizens of the district. Again, there are districts in which a single corporation can outvote all the residents of the district, although none of the officers of the corporation live in the district or have any children attending the school of the district. A more thoroughly vicious or undemocratic plan of determining whether or not moneys for school improvement shall be voted could scarcely be devised.

In preparation for the next session of the legislature, which convenes January 4, 1921, a committee of 35 citizens has been appointed to "frame a modern school law to be presented to the next session of the general assembly as a substitute for the present school code."

#### WILMINGTON AND THE SCHOOL CODE.

The Wilmington schools are organized and controlled under acts of the general assembly, which grant to the city practically complete autonomy in matters of education. It is scarcely to be wondered at, then, that when the proposal that Wilmington should adopt the school code and submit to its provisions, which in many details of school administration would have transferred control from Wilmington to Dover, the city board of education, in whose hands the decision rested, declined.

It was pointed out in the discussion among the reasons advanced for not adopting the code that it would place the control of the Wil-

Wilmington schools in the hands of persons residing outside of the city; that it would give the State board of education and the State commissioner of education authority to regulate the work and management of the schools in almost every detail; that under the new law, if Wilmington failed to comply with all the rules and regulations made by the State board, the latter could penalize the city by abolishing the special district which Wilmington was to comprise and declare that the schools and all of their assets should become part of the system of New Castle County, the county in which Wilmington is situated, and subject to the authority of the county board of education; that, in such event, the city board of education could be compelled to deed over to the New Castle County board the legal title to all of its property; and that under the power granted to the State board under this law "to change, alter, fix, and determine the boundaries of any and all special school districts herein designated, and of any and all special school districts hereafter created," the State board might detach portions of the city and merge them with adjoining rural districts.

It was pointed out in the discussion also that while some favored the adoption on the ground that it would mean changing an unwieldy city board of 13, elected by wards, to a board of 3, elected at large, yet that no such change in the size and manner of electing the city board would obtain, inasmuch as section 120 of article 5 provides that Wilmington shall not change the manner of electing the board nor its size. Again, it was shown that whereas many were urging the adoption of the code, because they thought that under its provisions the fixing of a tax rate for the support of the schools would be taken out of the city council and virtually placed with the board of education, that again in this important matter the new law excepted Wilmington, and that in consequence under it no relief in this could be obtained.

In short, because no advantages would accrue to the school department of Wilmington, under the new law, and that, on the other hand, accepting the code would mean the surrender of Wilmington's independence, home rule, and local management, the city board decided that it was unwise to adopt the code.

#### THE CODE WAS DRAWN FOR RURAL DISTRICTS.

A careful examination of the 1919 school code convinces the commission that it was drawn with the conditions obtaining in the rural districts of Delaware and their needs chiefly in mind. It would seem that the inclusion of Wilmington might have been an afterthought, for the provisions inserted in the law relating to Wilmington are certainly not well considered. Wilmington is the only city of size in the

State. While the educational advantages offered to children who live in the country ought to be, as nearly as possible, equal in value to those offered the child who chances to reside in the city, nevertheless it must be recognized that the problem of providing such opportunity, as between the city and the county, is vastly different—so different, in fact, that it is impossible that the same plan of organization, of administration, and of control can be equally effective in both. For this reason, then, cities in most States are granted a much larger measure of freedom from control by the State office in the matter of the management of their schools than would have been granted Wilmington had the new school code been adopted by that city.

#### MINIMUM STANDARDS ONLY SHOULD BE REQUIRED.

Every reason points to the desirability of so framing school laws that the cities of a State may be component parts of the State system subject to State supervision and control in certain requirements which the State has a right to demand of all its schools, to the end that all its children shall be guaranteed the rudiments of an education obtained under healthful conditions, and yet without repressing the city in meeting these standards nor preventing it from going as far beyond these minimum requirements as it may desire.

For example, the State can properly prescribe that all schools in the State should hold school a minimum number of days each year; but the precise dates of opening or closing the school term, when vacations shall be held, and whether or not the school year shall exceed the prescribed minimum should properly be left to the city. Again, it is quite in point that the State should prescribe minimum courses of study for the schools of the State, prescribing a minimum list of subjects which shall be taught in the elementary schools and the high schools; also to prescribe that the language in which such minimum courses shall be taught shall be the English language; but large latitude should be allowed the cities of a State in meeting these minimum standards and requirements and in going beyond them at whatever point desired. Again, to the end that the health of all the children of the State shall be safeguarded, minimum requirements respecting school buildings, their lighting, their heating and ventilation, their sanitary provisions, their equipment could properly be required by the State; but, again, in all matters of detail in meeting such general requirements the cities of the State should be free to follow their own judgments. So in many other matters concerning the control of the schools the broad, general minimum standards which shall obtain could rightfully be set by the properly constituted State authorities; but the way in which these standards are met in the case of the cities of the State should be left to local authorities.

## STATE INSPECTION AND PENALIZATION.

Furthermore, the supervision or inspection of city systems by State authorities should go no further than that which is needed to satisfy the latter that the minimum standards set for all schools are met. A supervision or inspection that goes beyond this, as a matter of legal right, becomes irritating and irksome and can do no good. On the other hand, where the office of State commissioner is staffed, as in many States, with recognized experts in various departments of educational activity, as in elementary school work, high-school work, vocational and industrial activities, and other specialized fields, the State officer can render much service to the school administrators of a city. But this relationship must be a voluntary and permissive one—one founded on mutual respect and good will and advisory in character, if good results are to come of it.

Again, in the matter of penalizing a city system for infraction of the law or because of failure to meet the rules and regulations laid down by a State board, the school laws of the country generally go no further than to require that the city's share of the State school fund, annually apportioned, be withheld until the requirements are met. The provisions in the 1919 school code of Delaware, empowering the State board to abolish the special district, automatically placing the schools under the county board, also, in such case, providing that all the property and assets shall pass to the county board, the legal title to all such property, the law reads, to be conveyed to the county board, is not only unnecessary but is altogether too drastic as applied to a city such as Wilmington.

Clearly, the school code of Delaware was written with the needs of backward and poorly managed rural schools in mind. Such districts need just such centralized, directing, and compelling authority as is provided for by the 1919 code. From the standpoint of this need the code is admirable in its essential features and should, in its structure, remain intact. But to make of it an instrument for Wilmington, stimulating and helpful rather than repressive, many changes should be introduced. These could, however, be introduced easily and naturally by inserting an article written to apply either to Wilmington alone or to cities of a given class.

**WILMINGTON SHOULD BECOME AN INTEGRAL PART OF THE STATE SCHOOL SYSTEM.**

Without any doubt the great strides made by this Nation during the past 50 years in the field of educational theory and practice have been due, in large part, to the remarkable growth and development of the school systems of the cities. Indeed, it is chiefly because of the contributions to this body of theory and practice made by our city school systems that this Nation now occupies the enviable place among nations in popular education that she holds. Moreover, it

must frankly be said, cities have been able to make the strides and the notable contributions to administrative and pedagogical practice that they have made very largely because they have been free from outside interference and, in consequence, able, within their financial limitations, to work out their own problems in their own way.

Until within the last few years the States have granted to the cities within their border almost any kind of an educational charter or an educational enactment which they desired. There is, however, a rapidly growing tendency among States to increase their control and supervision over all of their respective school units, including that of the city district. This tendency is the natural response to the theory that education is primarily a function not of an individual nor of a locality, but of the State, and that it is the State's business in the interest of citizenship to see to it that every child within its borders, wherever it may be, has a right to an opportunity to go as far in securing an education as his will and his ability permit. As long as this tendency to centralized control stops short of restricting and repressing the initiative of cities, it is thoroughly wise and sound.

Supervision, then, by the State board of education of Delaware, within the limitations outlined and with the safeguards mentioned, would help Wilmington very much. The following are some of the benefits which would accrue were such supervision wisely administered under the conditions set forth:

1. It would prevent the Wilmington schools from ever falling below a minimum level in respect to such matters as teacher qualifications, teacher salaries, sanitary school conditions, financial support, studies pursued, etc., because of local political flarebacks or because of the influence of local persons who might seek to exploit the schools for personal ends, on the one hand, or who might neglect them, on the other.

2. It would materially help in divorcing the department of education from the departments of municipal activity and freeing it from local competition and control. More and more, court decisions are upholding the theory that city departments of education are not municipal departments, but rather that they are instruments of the State. This theory when applied, as it now is in many cities, removes the school department from an embarrassing regulation of a restrictive and hampering character exercised by city councils or other municipal authorities which usually expresses itself in matters having to do with financing the schools. Furthermore, it relieves the school department of the necessity of coming into competition with the fire department, the police department, the street department, as well as with other departments of city government, in the matter of the distribution of an all-too-limited maintenance fund. It tends to give the local boards of education greater independence of



action by removing them from the subordinate relationship to the city mayor or to the city council which frequently obtains in cities and places upon them, subject to the general supervision of State authorities, all responsibility to the people for the conduct of the schools, which responsibility they, in duty, should assume. This is further discussed in Chapter II of this report.

3. Wilmington is part and parcel of the State of Delaware. To a large degree she is dependent upon the country around her for her growth and her prosperity. Her interests, commercially, industrially, politically, are inextricably interwoven with those of the State. Her schools are constantly receiving children from the country roundabout; in turn, Wilmington is constantly sending the children of her schools back into the country districts of the State. The educational problems of both the country of Delaware and the city of Wilmington, though different in character and type, should command the thoughtful and personal attention of every citizen whether residing in the country or in the city. The interests of Wilmington and of the rest of the State are not different; they are or ought to be identical.

One of the most unfortunate and discouraging aspects of the whole situation in Delaware, educationally speaking, is the feeling of antagonism which appears to exist between the country and the city. This expresses itself on the floor of the legislature often with particular ascerbity and acrimony and, of course, leads nowhere and accomplishes nothing except to block progress.

It is unthinkable that the general assembly of 1921 will be so blind to the interests of the children of Delaware as to abolish the progressive enactments of the 1919 session and revert to the old, outworn, antiquated plan of district schools. Without question, changes should be made in the code, but these changes, the commission is convinced, could well be made by better adapting the code to Delaware conditions. The structure of the code is sound; it needs to be modified only in details. Furthermore, an article should be inserted, written with the needs of Wilmington specifically in mind, guaranteeing to her schools the freedom from outside control in matters of detail which she should have. Then, when this has been accomplished, the commission is convinced, Wilmington can take no finer nor more progressive single step nor one which will be of greater significance in the education of the future citizenry of the State, nor, indeed, one which will bring to her own self greater advantages than to adopt it, thereby electing that her schools shall become an integral unity in the State system. Such a step would, it is confidently believed, go far toward healing the state of mind in which Delaware now finds herself because of the antagonism which has developed between Wilmington and the State outside.

## **Chapter II.**

### **SCHOOL ORGANIZATION, SUPERVISION, AND FINANCE.**

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#### **1. THE ORGANIZATION.**

##### **THE BOARD OF EDUCATION AND ITS POWERS.**

An act of the General Assembly of Delaware of 1905 provides that the city of Wilmington, with the territory then within its limits, or which in the future may be included by additions thereto, shall constitute a consolidated school district and that the supervision and government of the schools and school property therein shall be vested in a board of education comprising 13 members. This board, the act declares, shall constitute a corporation which shall have perpetual existence and succession, with power to purchase, lease, receive, hold and sell property, real and personal, sue and be sued, and to do all the things that are necessary to accomplish all the purposes for which such a school district is organized.

Furthermore, the act provides the board shall have power—

1. To establish kindergartens, elementary schools, one or more high schools, normal training schools or classes, evening schools, special and truant schools, training schools or classes for teachers, and to discontinue or consolidate any such schools.
2. To establish or change the grades of all schools and to adapt and modify courses of study therefor.
3. To fix standards of minimum qualifications for superintendents, principals, and teachers, and to fix their salaries and to dismiss them at any time for cause.
4. To appoint a secretary of the board of education, and a superintendent of schools and one or more assistants.
5. To enact rules and regulations for the execution of all its duties and that of its appointees and employees, for regulating the disbursement of funds, and for the promotion and welfare of the system.

The act is thus seen to give to the board of education practically unlimited authority in respect to the management and control of the schools of the city. Furthermore, on the side of a relationship of the city with the State, because the act fails to provide for such contact, in practice it has been construed that the schools

of Wilmington are independent of the public-school system of the State and are not a part of it. On the side of a relationship with city authorities, other than those connected with the schools themselves, the act provides for no contact except at one point, that requiring that the board of education shall annually submit to the city council an estimate of moneys needed for each ensuing year, whereupon the latter determines what the appropriation for the year shall be. In short, except in the matter of appealing to the city council for funds, the board of education is independent of all city and State authorities and is vested with powers large enough to enable it to have any kind of a school system it desires. In this, then, the board is subject only to its financial limitations and its educational vision. (In the preceding chapter reasons are given why the city schools should become an integral part of the State school system.)

#### SIZE OF BOARD AND MANNER OF ELECTING MEMBERS.

The act provides that the board shall comprise 13 members, one of whom shall be elected from each ward of the city (there are 12 wards), and the remaining member, who shall be the president of the board, shall be elected at large. The term of office is four years. Elections of board members are held biennially, 6 retiring at one election and 7 at another.

The Wilmington Board of Education as it is now organized and as it conducts its work is out of line with the progressive thought and practice of the time in four important particulars: (1) It is too large to be effective; (2) its members represent wards and local constituencies rather than the entire city; (3) it is not independent of the city council as it should be in the matter of financing the schools; and (4) it does not confine itself, in relation to its control of the department, to legislative and judicial functions as it properly should, but spends much of its time in dealing with executive details which should properly be left with the board's executive officers. The commission's views on each of these points, briefly stated, follow.

#### THE BOARD IS TOO LARGE.

The experience of business firms is that small boards are the most effective. Likewise cities are finding in administering their schools that small boards are much more effective than large boards. There was a period in the development of city school systems when large boards prevailed. Indeed, boards of from 20 to 50 members were not uncommon a few years ago. Philadelphia probably held the record, with 559 members. In the last few years, however, most

of the cities having these large, unwieldy boards have reorganized, substituting smaller boards, for the most part of 5, 7, or 9 members.

Cubberley<sup>1</sup> has succinctly stated the case for the small board as it is now viewed by progressive administrators:

The small board is far less talkative, and hence handles the public business much more expeditiously; it is less able to shift responsibility for its actions; it can not so easily divide itself up into small committees, and works more efficiently and intelligently as a committee of the whole; and it can not and will not apportion out the patronage in the way that a large ward board can and will do. A large board is unwieldy and incoherent; it seldom transacts the public business quietly and quickly; it tends too frequently to become a public debating society, where small or politically inclined men talk loud and long and "play to the galleries" and to the press; while personal and party politics, and sometimes lodge and church politics, not infrequently determine its actions. It is almost always divided into factions, between whom there is continued strife and rivalry, and important matters are usually caucused in advance and "put through" by the majority at that moment in control. A reduction in size to a body small enough to meet around a single table and discuss matters in a simple, direct, and businesslike manner, under the guidance of a chairman who knows how to handle public business, and then take action as a whole, is very desirable.

The commission is of the opinion that a board of 7 members rather than one of 5 or of 9 is best suited to the needs of Wilmington. With a board of 5 it is too easy for 4 to pair off on questions of policy, leaving to the fifth the balance of power. With a board of 7 a uniform alignment of members which permits a single individual to determine the board's action is not so easy.

#### THE MEMBERS SHOULD BE ELECTED AT LARGE.

The ward method of electing school board members comes down from the time when city wards were independent school districts. The practice is very rapidly disappearing, for it has been found over and over again that no surer method can be devised for perpetuating in the management of the schools all the evils of personal and political control than to retain the system of electing school board members by wards. In 1902, 25 of 57 of the largest cities of the country elected or appointed school board members by wards or districts. In 1916, of these same 57 cities, all had changed except 9. Now, four years later, several of these have changed from a ward basis to that of election at large.

The evils growing out of ward representation are again well summarized by Cubberley:<sup>2</sup>

The tendency of people of the same class or degree of success in life to settle in the same part of the city is a matter of common knowledge. The successful

<sup>1</sup> Cubberley, *Public School Administration*, Houghton Mifflin Co., 1916, p. 92.

<sup>2</sup> Cubberley, *Public School Administration*, Houghton Mifflin Co., 1916, pp. 93-95.

and the unsuccessful; the ones who like strong and good government, and the ones who like weak and poor government; the temperate and the intemperate elements; and the business and the laboring classes—these commonly are found in different parts of a city. Wards come to be known as "the fighting third," "the red-light fourth," "the socialistic ninth," or "the high-brow fifth"; and the characteristics of these wards are frequently evident in the composition of the board of education. The young and ambitious politician not infrequently moves into an "open ward" in the hope of securing an election there, and, when elected, makes the school board a stepping-stone to the council and higher political preferment. Not infrequently the school janitor, appointed in the first place as a reward for political services, becomes the ward boss in turn and dictates the nomination of the school board members.

One of the important results of the change from ward representation to election from the city at large in any city of average decency and intelligence is that the inevitable representation from these "poor wards" is eliminated, and the board as a whole comes to partake of the best characteristics of the city as a whole. The members represent the city as a whole, instead of wards; they become interested in the school system as a unit, instead of parts of it; and the continual strife in boards caused by men who represent a constituency instead of a cause, and whose efforts are constantly directed toward securing funds, teachers, and janitors for the school or schools "they represent" is largely eliminated.

Under the ward system of representation, too, it is a matter of common knowledge that men are nominated and elected from wards who could not be nominated, much less elected, from the city at large. Better men are almost always attracted to the educational service when election from the city at large, and for relatively long terms, is substituted for ward representation. A man of affairs, really competent to handle the education business of a city often can not be induced to accept membership on a large ward board because of the great waste of time and the small results attained. If the management of a school system is political, or personal, or petty, the best men tend to keep off the school board, which, in turn, accentuates the trouble and brings a constantly poorer quality of men to the service.

The commission is in no uncertainty of mind as to this: That Wilmington will never make much progress educationally until she abolishes the present method of electing her board of education by wards. All the evils of the ward system which other cities can point to in their own experience have at one time or another obtained in the administration of the schools of Wilmington and for the same reasons. The men who from time to time have represented their respective wards in the board of education should not individually be blamed for the narrow, partisan, ward point of view from which they have viewed the various school problems as they have arisen.

The system inevitably tends to place on the board men who are responsive to ward thought and ward influence. They would not, under the system, be on the board if they were not men who were willing to fight for ward interests as against the larger good if the two seemed to conflict. It is no fault of the men individually, for that is what the system tells them to do. There have been, of course, on every board in Wilmington men who, though elected by wards, have refused to be

swayed by the mind of the ward when the common good was in question, but these men, it should be pointed out, found place on the board not because of the system, but because of the fact that no system will always give a product that runs true to type. The ward system is bad, very bad. It must be thrown into the discard before Wilmington can take her place educationally among the front-line cities of the country.

**THE BOARD OF EDUCATION SHOULD BE INDEPENDENT OF THE CITY COUNCIL.**

Another change should be made in the enactments governing the schools of Wilmington, a change such that the board of education shall be empowered to levy taxes for the support of the schools. The board's limitation in this important respect means, of course, that it is not an independent body. It has neither full and final power nor full and final responsibility in its control of the schools, for its estimates of the amount needed for the support of the schools is passed in review by the city council, which may or may not grant the sum called for. Thus the power of the board of education to carry out its plans for the extension and improvement of the schools depends upon the action of an independent body, which can have no such intimate knowledge of the schools' needs as has the board of education. The board of education, therefore, is unable to formulate any definite policy with the certainty of being able to put it into operation, and as a consequence it can not properly be held completely responsible for any inefficiency in the school system which may develop.

More and more throughout the country it is recognized that the efficient administration of city schools demands that boards of education be given full control over the educational, business, and financial affairs of the school system. That is to say, the tendency in practice is to make city boards of education entirely independent of all other branches of city government; and this should be brought about in Wilmington. The board of education of Wilmington should be given the power to levy, within statutory limitations, a tax sufficient to maintain its schools on a plane of high efficiency.

More and more, too, the tendency among cities is to remove their school departments from local, municipal control and place them under the general oversight of State authorities, for it is found in practice that such control becomes less personal and restrictive, less subject to political vagaries, and more helpful and stimulating in its effect. This is one important reason why Wilmington should become an integral part of the Delaware school system when the school code is revised to safeguard her freedom. (See discussion of this point, Chapter I.)

**THE BOARD'S METHOD OF SCHOOL CONTROL SHOULD BE CHANGED.**

As now organized the board's work is very largely carried on by standing committees, of which there are 12, each board member being the chairman of one committee and the president of the board being ex-officio member of all, with power to vote in case of a tie. The chief objection to this procedure lies in the fact that the work of almost every committee takes it into a field which requires a degree of expert technical knowledge which the members of the committees can not be expected to have. Instead, experts competent to deal with all such matters should be employed and their opinions considered. A school board can be of greatest service if it confines its functions to determining policies, selecting experts, authorizing new projects, securing funds, and determining how these shall be distributed. The board should free itself from details of organization and administration, giving its time and attention to legislative and judicial matters. Executive functions should be delegated to the superintendent of schools and to his staff of experts. The plan of conducting the work of the board through standing committees does not lend itself to this distinction between the functions of the board on the one hand and those of the superintendent and his staff on the other.

Indeed, if this board consciously holds to this distinction in function, it will need few if any standing committees. Particularly if the board be a small one, the work can be carried on most efficiently if the board sits as a whole and any committees appointed, as is sometimes desirable, be temporary and detailed to the consideration of a specific matter only.

The board of Wilmington has even gone much further in devoting its attention to details than would be required merely by the work of standing committees, for each member acts as an agent for certain schools and is expected to bring to the attention of the board the particular needs of individual schools. It therefore comes about that at the regular monthly meetings of the board each member is expected formally to submit to the board his report on the condition and needs of the schools which have been assigned to him. It seemed curious to the commission to see board members rise and formally ask the board to supply their schools with a door mat, or with 25 feet of rubber hose, with 6 panes of window glass, or with this, that, or the other thing, according to the various needs. Indeed, it was said that one member has gravely asked the board on every meeting night for two years for a couch for the teachers' rest room of one of his schools and has not yet gotten it.

Clearly all such details should come to the attention of the board by way of a member of the executive staff of employees who should

organize, coordinate, and standardize all such needs. Thus the board would be relieved of the necessity of attending to such petty details; the needs of schools themselves would be more promptly and efficiently met; and doubtless considerable economies would be effected.

#### SUMMARY.

Obviously, if Wilmington reduces the size of her board to seven members and elects the members at large from among persons who are accustomed to think in city-wide terms, these conditions will in large degree be automatically rectified, and a great stride in efficient, businesslike administration will have been taken.

The experience of Detroit, Mich., in the results of such a reorganization as the commission recommends for Wilmington is in point. At the 1912 session of the Michigan Legislature the privilege was granted Detroit of submitting to its citizens the proposal of reducing its board of education from 18 members to 7 and of having them elected at large. In 1916 Detroit submitted the matter to a general election, where it was passed by a substantial majority. In 1917 a new seven-member board was chosen by a nonpartisan ballot. In the annual report of the board (1917-18) there is to be found an interesting statement concerning its work. An excerpt follows:

The essential difference between the old and new boards is one of representation. The old board was elected by wards, and the inspectors were the personal representatives of minor administrative districts. The new board represents the community at large, without the partisan interests that necessarily influenced the larger body.

The small board made fundamental changes in the rules. The division of administrative power was abolished, and responsibility for the conduct of the entire system was placed in the hands of the superintendent.

The appointment of all administrative officers as well as teachers is now made by the superintendent and approved by the board of education. The control of the purely educational and the business functions are in the hands of technically trained experts. There is no outside interference with the working of these officers. Appointments, reappointments, promotions, and dismissals are based upon systematically organized and carefully supervised records.

With these fundamental changes in policy the old committee system under which the ward-elected board worked has passed out of existence. The relation of the present board to the school system is like that of a board of directors to a large corporation.

#### THE SCHOOL SUPERVISORY STAFF.

In Wilmington the school supervisory staff consists of the superintendent, the assistant superintendent, the principals of schools, and the special supervisors of drawing, music, nature study, physical education, and sewing.



The teaching is directed by this staff by means of mimeographed directions and suggestions, issued from time to time from the central office: by personal visits to the classes; by personal conferences; and by teachers' meetings conducted by the principals. .

The superintendent holds frequent meetings with principals and a limited number of general teachers' meetings a year; the assistant superintendent holds a considerable number of meetings with the teachers who have just been appointed, interprets to them the course of study and gives them instruction as to their work. The principals hold from one to two meetings a month with the teachers of their schools at which the study and discussion of an important book on education is the chief feature. A list of such books studied during last year shows that these meetings are of great value. The assistant superintendent occasionally conducts these meetings in place of the principal.

The supervisors of special studies hold each a limited number of meetings during the year. These methods of directing the teaching of the schools are all good as far as they go. But alone they are not as effective as supervision ought to be. There is abundant evidence of this in the schools, as described elsewhere in this survey.

Teachers of good ability are not always clear in their conception of the aims to be accomplished in the teaching of a particular study, and they not infrequently employ methods no longer employed in good schools. In short, observation of the actual teaching shows that in many cases teachers are better than their teaching. That is, more effective, suggestive, and not prescriptive supervision would very greatly help them and improve their teaching.

As elsewhere fully stated, there is altogether too much formal teaching in such subjects as language, drawing, arithmetic, etc., in the primary grades, and more than is desirable in the grammar grades. This is very marked in the schools, more so in the primary than in the grammar grades, where more use is made of the "socialized recitation." In many other respects observation shows the need of more effective supervision. What is needed is more supervision, such as can be effected only through frequent teachers' meetings, at which, as above stated, there is a systematic discussion, in a very practical way, of right aims in education in general, right aims in each study taught, right methods, and especially the reasons for such methods. Unless teachers comprehend the reasons, psychological and other, for the methods which are suggested to them, they follow them blindly and can not work them out intelligently. So far as method is concerned, supervision should not be arbitrarily prescriptive, but should be suggestive. It is too prescriptive in Wilmington without its being so intended. By clear discussion in the teachers'

meeting, teachers should be convinced that the method suggested is a good one. This produces unity of aims and of method; prescriptive supervision produces uniformity. Unity is consistent with life and with variety, uniformity is not; a living tree has unity; a telegraph pole has uniformity.

#### **FUNCTIONS OF THE STAFF MEMBERS.**

In a city of the size of Wilmington the superintendent is heavily burdened with administrative details and can not systematically visit schools. But he can hold more teachers' meetings and through these make his influence more strongly felt throughout the schools. If necessary, he should be given sufficient clerical help to enable him to do this.

The assistant superintendent should hold frequent meetings of all the teachers in a given grade, or in several grades, and systematically discuss the teaching in the so-called "regular studies"; and the special supervisors should hold more frequent meetings devoted to similar discussions of their respective subjects.

In visiting schools the supervisor of special studies should teach very frequently. Teaching the lesson and having the grade teacher observe is the most effective way of showing teachers how to teach. It is also quite effective as a means of discovering weak spots in the teaching.

The principals, some of whom are very efficient in supervising the teaching in their schools, but some are not, must be held responsible for the detailed help teachers need from day to day to make their teaching efficient. It is a part of their duty to make good teachers of poor ones, provided such teachers have the native ability and preliminary professional training to make this possible. Principals should spend their time in the various schoolrooms, aiding teachers with suggestions, more than is the case in many Wilmington schools.

#### **MAKING WORK OF PRINCIPALS EFFECTIVE.**

To make this possible three things are necessary:

1. An office hour should be fixed by the board, upon the recommendation of the superintendent after consultation with the principals. This office hour should be the same for all elementary schools and should be printed on all report cards sent periodically to parents, so as to become fixed in their minds; then principals should refuse to see people in their office except during the office hour.

2. Telephones to the schools should be connected only with the superintendent's office. The public ought not to have direct telephone communication with the schools. At present telephone messages come to the principal's office at all hours of the day, and they are frequently unimportant. This and the personal calls of parents

at all hours during the school session naturally lead principals to spend their time altogether too much in their offices instead of in the schools supervising the teaching.

3. It is further necessary that principals be relieved sufficiently of clerical work to enable them to devote more time to supervision.

As the chief function of the principal of a school is to supervise the teaching in her school, it is obvious that if she fails of success in this respect she ought to make room for a successor. Successful supervision by principals is of supreme importance. Without it the superintendent can not build up a superior system of schools. The greatest care should therefore be exercised by the board in the appointment of principals.

To insure the efficiency of principals, a higher minimum requirement, not only as to experience, but especially as to extent of professional training, should be required of them than for teachers. While the minimum requirement for teachers should be graduation from a high school in a four years' course and graduation from a two years' course in a normal school, no one ought to be eligible for a principalship who has not had at least three years of professional training in addition to a four years' high-school course, and who has not had experience in teaching in all the grades which she would have to supervise as principal. No exceptions to these requirements should be made.

#### **THE TEACHING CORPS.**

The corps of teachers in Wilmington, taken as a whole, is a good one, better than the taxpayers have a right to expect, considering the conditions under which they are obliged to work. Some are exceptionally capable. Many have at their own expense attended courses of lectures at the State College and at the University of Pennsylvania. This is true also of the corps of principals, three having attended the University of Pennsylvania and seven the Delaware College. The teachers are loyal, conscientious, and faithful. There are among them those who are inefficient, but they are being gradually eliminated.

#### **MORE INFORMATION ABOUT THE SCHOOLS SHOULD BE IN SUPERINTENDENT'S OFFICE.**

There are many things about the schools other than about the finances that the board, the superintendent, and the public need to know, if the schools are to be administered so that there will be a constant increase secured in their efficiency. In a school system that is steadily improving in the quality of its work one will find, among many others, that the following things are happening:

1. From year to year the school system will enroll a larger percentage of the children of school age and will carry them further along in the grades before they drop out.

2. The number of over-age pupils and of pupils who are making slow progress through school will decrease.

3. There will be fewer and fewer failures in promotion and fewer who drop out of school because they become discouraged and disheartened in their work.

4. There will be much greater regularity in school attendance and fewer absences.

5. There will be a decrease in the number of pupils per teacher until a reasonable limit has been reached.

6. Teachers' qualifications will be advancing steadily, and the conditions under which they live and work will increasingly make for a more stabilized teaching force.

7. When pupils do leave school it will be known why, and in the light of this information, the work of the schools will be shaped to meet their needs better.

8. Pupils will be followed up after they leave school in order to determine wherein their training could have been improved.

9. Information will be compiled systematically about what other school systems are doing in order that the system in question may profit by the experience of others elsewhere.

These are some of the things which characterize the system that is on the alert to improve. Statistical information, and information of nonstatistical character about the system necessary to this end, are secured in large school systems by a group of experts who give their whole time to compiling and interpreting such facts; in small systems this is handled by the superintendent through a carefully devised system of reports which he requires principals and teachers to file at stated intervals and which are tabulated and made available by a clerk working under his direction.

#### **INFORMATION WHICH SHOULD BE IN THE SUPERINTENDENT'S OFFICE.**

Among the facts that should always be at hand in the superintendent's office, in order that the school authorities of Wilmington may determine for themselves whether the system has been steadily improving or steadily declining, are the following:

1. The number of children at different ages in the city and the number in school, both public and private.

2. The number of compulsory attendance age in and out of school.

3. The number above compulsory attendance age in and out of school.

4. The ratio of pupils above compulsory attendance age to those of compulsory age. Changes in ratio.

5. Number of pupils for each 100 beginners dropping out of school at each age and at each grade; number of those leaving to enter school elsewhere; number leaving for other causes.

6. Per cent of those entering the first grade to complete the elementary school course; the high-school course.

7. Per cent of those completing the elementary schools to enter high school.

8. Per cent of those entering high school to complete the course.

9. Per cent of high-school graduates who enter college. Kind of work done in college.

10. The age-grade distribution of all pupils for each school and for the entire system, from which can be determined facts about retardation and acceleration of pupils.

11. Attendance. Average daily attendance based on number belonging, on school population; distribution showing number and per cent attending 1 to 10 days, 11 to 20, and so on.

12. What those who have graduated from high school within 4, 5, or 10 years are doing, those who have graduated from the grammar school, those who left the elementary grades without graduating, those who left high school without graduating.

13. Per cent of pupils who fail of promotion in each grade and in each subject.

14. Ability of pupils as determined by school grades, standard tests, and mental tests.

15. Various cost items.

16. Preparation, experience, and other significant facts regarding teachers.

17. Significant facts regarding schools in other cities.

There is in the superintendent's office at Wilmington information upon most of the foregoing points, but owing to a lack of clerical help it has not been put into shape for use by the board or the public. With the data collected but uncompiled and uninterpreted it is impossible for the board of education to know whether the school system has been steadily improving in efficiency or declining. In a large city like Wilmington it is a physical impossibility for the superintendent himself to collect, compile, and interpret the necessary data or even to direct the work of a clerk. The board should, therefore, employ some one trained in educational statistics to make a continuous statistical study of the Wilmington schools. He might well be made assistant superintendent to assist the superintendent and supervisors in diagnosing the school system. After such person

has been employed a complete filing system, several of which have been evolved, should be introduced.

The facts having been collected and compiled, the superintendent should use them in his monthly and annual reports to the board of education. The annual report should be so written that the public can understand it, published, and given wide circulation among the citizens.

## **2. THE FINANCING OF THE SCHOOL DEPARTMENT.**

### **SCHOOLS MAINTAIN NO ACCOUNTING SYSTEM.**

The public schools of the city of Wilmington maintain no accounting system in the sense of a double-entry set of books. Prior to the present fiscal year, other than a record of receipts and disbursements maintained in the city auditor's office, and memoranda information maintained in the office of the secretary of the board of public education, the accounting of school expenditures has consisted of a voucher file and lists of paid vouchers.

Beginning with the present fiscal year, July 1, 1920, the secretary of the board has adopted the New York State system of reporting school expenditures, which as a reporting system has been approved by the United States Bureau of Education. That system is not in itself and was not devised by the originators to be an accounting system in the technical sense of the word. It was evolved as a medium by which a centralized agency might obtain on a standardized basis annual statements of school expenditures. In its classification and distribution of expenditures it segregates administrative or general control and overhead expenses, instructional expenses, building operation and upkeep expenses, interest and bond payments, capital outlays, and the expenses of auxiliary agencies and other activities. Its adoption is commended, but, in addition, a regular system of double-entry accounts by which the financial activities and financial condition of the public schools may be reflected should also be put into effect.

### **SCHOOL EXPENDITURES IN EXCESS OF REVENUES.**

By reason of the fact that the public schools have maintained no general ledger accounts they have been without the information necessary for presenting currently operation costs, fund statements, and balance sheets. Therefore in order to ascertain the financial condition of the schools it has been necessary to evolve from the existing data such statements with such accuracy as conditions permit; and these statements, a general fund statement, a new-building fund statement, and a combined fund statement are set forth as Exhibit I.

From this combined fund statement it will be seen that expenditures applicable to the school year 1919-20 are \$20,581.56 in excess of the revenues for that year, i. e.:

Expenditures applicable to school year 1919-20.....	\$654, 606. 35
Revenues applicable to school year 1919-20.....	631, 725. 29
Excess of expenditures over revenues.....	22, 881. 06
Less excess of cash over accounts payable, both brought forward from year 1918-19.....	2, 299. 50
Net deficit for 1919-20.....	20, 581. 56

#### CURRENT EXPENSES OF WILMINGTON PUBLIC SCHOOLS.

Eliminating capital expenditures, the current expenses of the public schools for the school year 1919-20, together with per capita cost of average daily attendance, are as follows:

#### Public school expenditures in 1919-20.

Purpose.	Amount.	Cost per capita average daily attendance. <sup>1</sup>
<b>Total.....</b>	<b>\$557, 800. 53</b>	<b>\$51. 99</b>
General control.....	22, 669. 96	2. 11
Instruction, day schools.....	408, 613. 03	38. 08
Operation cost, all schools.....	54, 349. 56	5. 07
Upkeep cost, all schools.....	44, 419. 85	4. 14
Auxiliary agencies and other activities.....	4, 301. 60	. 40
Fixed charges and interest.....	23, 446. 53	2. 19

<sup>1</sup> Average daily attendance of white schools, 9,590; colored schools, 1,140; total 10,730.

<sup>2</sup> Includes \$3,000 appropriated by city council direct to teachers' retirement fund.

For the purpose of comparing on the same basis the expenditures of the Wilmington public schools with those of other schools, a statement similar to the above has also been prepared as follows for 1917-18, for which period the Bureau of Education at Washington has made an analysis of school expenditures of 45 cities of 30,000 to 100,000 population in different parts of the country. The average daily attendance for the Wilmington public schools for 1917-18 was 9,970.

#### Per capita costs in Wilmington and other cities.

Purpose.	Amount.	Cost per capita of average daily attendance.		
		Wilmington.	Average of 45 cities.	Per cent.
<b>Total.....</b>	<b>\$354, 640. 20</b>	<b>\$35. 57</b>	<b>\$52. 09</b>	<b>68</b>
General.....	13, 918. 10	1. 40	1. 74	81
Instruction, day schools.....	276, 204. 69	27. 70	36. 06	76
Operation cost, all schools.....	30, 414. 33	3. 05	6. 70	45
Upkeep cost, all schools.....	14, 289. 69	1. 43	2. 72	53
Auxiliary agencies and other activities.....	2, 256. 92	. 23	. 80	29
Fixed charges and interest.....	17, 556. 50	1. 76	4. 07	43

It will be seen from the above that in 1917-18 Wilmington expended for school purposes but 68 per cent of the average; or, in other words, if Wilmington had expended 46 per cent more than she did she would have expended the average of that of the other cities listed. It will be seen also that Wilmington in 1919-20, three years later, has not reached the average of the other cities in 1917-18. On the aforesaid basis Wilmington ranked thirty-fourth in the group of 45 cities in 1917-18 as to comparable public-school expenditures.

#### SCHOOL EXPENDITURES COMPARED WITH OTHER CITIES.

A statement of the capital outlays for public schools, as shown by expenditures from the new building fund, is set forth in Exhibit II. Other outlays may have been made from the general fund, but in the absence of such information, it will be seen from the following statement that \$41,126, which is the average amount Wilmington has thus expended, is but 58 per cent of the average that cities of 25,000 to 100,000 population have so expended.

#### *School expenditures since 1911.<sup>1</sup>*

Year.	Number of cities.	Total amount.	Average.
1911-12.....	164	\$9,292,478	\$56,061
1912-13.....	179	10,447,598	58,366
1913-14.....	185	13,531,152	73,141
1914-15.....	180	12,903,946	71,690
1915-16.....	179	13,913,436	77,723
1916-17 <sup>2</sup> .....			
1917-18.....	<sup>3</sup> 141	12,843,013	91,085
1918-19 <sup>3</sup> .....			
Total.....	1,028	72,931,603	70,944

<sup>1</sup> Information prior to 1911-12 not obtainable.

<sup>2</sup> In 1917 the Bureau of Education began collecting information biennially instead of annually.

<sup>3</sup> List of cities changed to those of 30,000 to 100,000 population.

The city of Wilmington had a net investment in its public schools at the beginning of the present fiscal year, July 1, 1920, of \$1,180,000, as will be shown by the following balance sheet:

#### *Statement of assets and liabilities as of June 30, 1920.<sup>1</sup>*

ASSETS.		LIABILITIES.	
Land and improvements to land.....	\$206,417.00	Bonds payable.....	\$305,000.00
Buildings.....	1,971,623.35	Mortgages payable.....	36,500.00
Equipment.....	146,816.87	Accounts payable.....	24,339.51
Cash.....	<sup>2</sup> 20,054.49	Investment of school corporation.....	1,979,572.20
Accounts receivable.....	<sup>3</sup> 500.00		
Total.....	2,345,411.71	Total.....	2,345,411.71

<sup>1</sup> The value of land, buildings, and equipment in this balance sheet are taken from Exhibit III. Probably a revision of land values would increase the total investment to some extent.

<sup>2</sup> Excluding \$100,000 levied in the school tax of 1919-20 for the construction of a school building in the district built up by the Housing Division of the United States Shipping Board Emergency Fleet Corporation, and the money collected but not as yet turned over by the city council to the board of public education.

<sup>3</sup> Estimated.



Disregarding the above liabilities it will be seen that the total value of Wilmington school property as of June 30, 1920, is \$2,324,857. Deducting \$88,096, outlays during 1918-19 and 1919-20 (see Exhibit II), the value of the school property at the end of the year 1917-18 is seen as \$2,236,761. Compared with the analysis of school expenditures of the 45 cities of 30,000 to 100,000 population, heretofore referred to, Wilmington stands fifteenth, and has less than one-half the amount of school property that such cities as Akron, Ohio, and Springfield, Mass., have, and practically one-half what Des Moines, Iowa, and Duluth, Minn., possess, Springfield being equal in population and the other three cities of less population than Wilmington. (See Exhibit IV.)

#### EXPENDITURES OF CITY FOR ALL PURPOSES FOR PAST 10 YEARS.

During the past 10 years Wilmington has expended the following amounts for its various public activities, 22.8 per cent of which has gone to the public schools.

*Appropriations of city council for the years 1910-11 to 1919-20, inclusive, as set forth in city ordinances.*

	Amount.	Per cent.
Total.....	\$14,348,516.06	100.0
Bond interest and sinking fund payments <sup>1</sup> .....	3,288,285.35	23.0
Streets and sewers.....	1,964,495.00	13.7
Water.....	1,603,699.52	11.2
Police.....	1,429,500.00	9.9
Fire.....	751,920.00	5.2
Garbage removal.....	235,277.90	1.6
Parks.....	256,506.00	1.8
Library.....	173,321.21	1.2
Health.....	138,500.00	1.0
Miscellaneous.....	1,236,784.41	8.6
Total for other than public schools.....	11,078,289.39	77.2
Public schools <sup>2</sup> .....	3,270,226.67	22.8

<sup>1</sup> Excluding school bonds, interest and principal, which are paid from the appropriations to public schools.

<sup>2</sup> Including appropriations to police committee and firemen's pension fund.

<sup>3</sup> Including appropriations to Delaware Anti-Tuberculosis Society.

<sup>4</sup> Including appropriations to teachers' retirement fund, and also appropriation of \$100,000, levied in school tax for 1919-20 but which has not as yet been turned over to department of public schools.

It is to be noted, however, that bond, interest, and sinking-fund payments, applicable to other city activities, have not been charged to those activities. If the \$100,000 expended by the board of public education during this period in the payment of bonds, and also \$96,822.50 for interest, are submitted in like manner, the amount allotted to the operation and upkeep of the schools can be reduced to 21.4 per cent, the allotment to the public schools then appearing on the same basis as the allotment to the other departments. But accepting the portion for the public schools as 23 per cent (it was exactly 23 per cent for the public schools in 1917-18), and comparing it with the average in 1917 in 219 cities in the country of 100,000

population and over, which was 31 per cent, it is seen that the expenditures by Wilmington for school purposes is but 74 per cent of the average of the cities considered, and that Wilmington must increase her expenditures at least 35 per cent to equal the average.

#### ASSESSED VALUATION OF PROPERTY IN WILMINGTON.

A statement of the assessed valuation of property available for taxation in the city of Wilmington, together with the tax rates for the past 10 years, is set forth as Exhibit V.<sup>1</sup> The assessment is reported by the tax department of the city to be on a 100 per cent basis.

It is to be noted that the assessed valuation of property available for taxation in 1917-18 was \$83,438,675. Compared with the analysis of the 45 cities of 30,000 to 100,000 population heretofore referred to, Wilmington stands eighteenth. (See Exhibit VI.) This amount of property is but two-fifths of the taxable property shown by the cities of Akron, Ohio, and Springfield, Mass., each of about the same population as Wilmington, and which cities are reported as also assessed on a 100 per cent basis. It is about the same amount as the assessed valuation of the taxable property, reduced to a 100 per cent basis, in Wheeling, W. Va., Little Rock, Ark., and Pasadena, Calif., which cities in 1917-18 were half the size of Wilmington.

The tax rate for Wilmington for school purposes during the past decade shows an average of 47 cents; for the year 1916-17 it was 46 cents. In comparison with these same 45 cities, Wilmington stands thirty-fourth. (See Exhibit VII.) This tax rate for school purposes is less than that of Akron, Ohio, and Springfield, Mass., which, as stated above, have more than twice the amount of taxable property; and furthermore, it is but a trifle over one-half the tax rate of Bayonne, N. J., which is smaller in population and has less taxable property than Wilmington.

#### DISTRIBUTION OF SCHOOL EXPENDITURES DURING 1919-20.

In reviewing the expenditures of the public schools of Wilmington an intensive analysis of those relevant to the school year 1919-20 has been made, all payments covering deficit of the previous year being set aside. In this analysis, while no change occurs in reporting the actual elements, they, on the other hand, are grouped on a somewhat different basis than has previously been the custom. But with expenditures for educational purposes increasing yearly, it is becoming increasingly more important that they, as well as other public expenditures, be presented in a form that will be as illuminating as

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<sup>1</sup> It is reported that Wilmington raises additional revenues by various other means than by direct taxation, such as fees chargeable against business activities, special licenses, etc.

possible to the average citizen and presented also in sufficient detail to secure his intelligent review and criticism. This new arrangement, therefore, has been evolved to meet this need and in the belief that if a citizen can see more clearly the manner of school expenditures such expenditures will be stronger in their appeal for his support.

This analysis separates the expenditures of the Wilmington public schools, relevant to the school year of 1919-20, as follows:

	Amount.	Per cent.
<b>Total.....</b>	<b>\$654, 006. 35</b>	<b>100</b>
Expenditures relating to the present.....	554, 633. 66	84. 7
Expenditures relating to the past.....	18, 002. 50	2. 8
Expenditures relating to the future.....	81, 970. 19	12. 5

As thus outlined a general analysis is set forth as Exhibit VIII, and detailed analyses supporting the general analysis as Exhibits IX, X, XI, XII, XIII, XIV, XV, XVI, XVII, XVIII.

It should be said that this analysis had to be made within a time limit and from data existing in various forms and in a chaotic condition. The information has been taken from vouchers, pay rolls, statements, and other records in the secretary's office and the office of the superintendent of schools, supplemented with oral information. Acknowledgment is to be made of the use of the report of the audit of the school accounts made for the board of public education by the public accountants in the summer of 1920. In various instances it has not been clear whether certain expenditures belonged to 1918-19 or 1919-20. It is therefore possible that some of the detailed allocations may not be correct. In such cases, however, it is equally possible that an excess charge may be overshadowed by a charge which should have been included, or vice versa. But it is believed that in the main the analysis is approximately correct, or at least near enough so for all practical purposes.

#### THE FINANCIAL ADMINISTRATION AND ACCOUNTING PROCEDURE.

The financial administration of the public schools of the city of Wilmington, in the light of twentieth-century methods and scientific management, is subject to severe criticism. This criticism, however, is to be understood as applying to methods and not to individuals. It is assumed that the existing routine and procedure comes to the present members of the board of public education as a legacy. But be that as it may, the board is attempting the impossible in endeavoring collectively and individually to administer the financial details of the public schools. The budget, instead of being prepared on the basis of functions and representing a specific program, is more or less of a hodgepodge and means very little from the administrative point of view. It is the height of absurdity for the board to be

legislating formally on such things as the advisability of purchasing 25 feet of hose for a school building.

At the present time the board collectively authorizes expenditures first by budget appropriation and then currently by detailed items. Next, as committee members they attempt to audit and approve all pay rolls. A majority of the finance committee must sign all invoices and pay rolls—a purely pro forma proceeding which dissipates responsibility. What is needed is a surgeon as much as a survey to separate the board from much of the useless red tape with which it is tied. If relieved from much of the petty detail, the board could give more of its time to questions of policy which would have a tendency to effect economies, or at least effect greater accomplishments for the same amount of money. A change in the city charter which would require the city government to turn over to the schools when collected the full revenues from the school tax instead of doling out one-twelfth of it each month, would mean that the schools instead of the city government would receive the interest from the greater portion of the school funds on deposit. The retaining by the city government of \$100,000 collected in the school tax in 1919-20 for a specific school building, for example, means a direct loss to the schools and to the school children of approximately \$4,000 annually in interest, which, needless to say, could have been used to advantage.

The accounting procedure, or rather the lack of accounting procedure, has been criticized in a preceding paragraph. At present there is no knowledge in accounting form of the contingent liabilities of the schools; that is, the orders to vendors issued and unfilled, and invoices rendered and unpaid. Instead of the heads of various departments making their own purchases for supplies, such purchases should all clear through the secretary's office. This recommendation does not mean a hamstringing of the heads of departments, but a combination of centralized control with departmental administrative latitude.

It is recommended that the secretary's office open up a set of double entry books, in addition to the record of expenditures, and maintain some such accounts as the following:

Cash.	Revenues.
Accounts receivable.	Bonds payable.
Contingent liabilities.	Claims registered.
Undistributed expenditures.	
Expenses:	Vouchers payable.
Prior years.	
Current year.	
Outlays.	
Land.	Mortgages payable.
Buildings.	
Equipment.	

With such simple basic accounts as the above, the school would be in a position to show currently the financial statements common to any business concern of standing; and together with the form of expenditure analysis which has been adopted, be prepared also to give currently any detailed financial statistics that may be called for.

### 2. CHILD ACCOUNTING IN WILMINGTON.

As no accurate school census has been taken in Wilmington in recent years, the city board of education authorized the survey commission to have unpublished data in the Census Bureau tabulated. These tabulations follow:

#### *Population of Wilmington, Del.*

[Compiled by the Bureau of Census from the Census of 1920 not yet published. Submitted to the U. S. Bureau of Education, Nov. 23, 1920.]

Color or race.	Under 1 year.	1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.	8 years.	9 years.	10 years.
Total.....	2,449	2,399	2,327	2,282	2,045	2,111	2,058	1,937	1,930	1,750	1,795
White <sup>1</sup> .....	2,304	2,262	2,209	2,155	1,899	1,977	1,905	1,782	1,779	1,628	1,640
Male.....	1,110	1,122	1,119	1,070	946	1,006	938	848	891	801	791
Female.....	1,194	1,140	1,090	1,085	953	971	967	934	888	827	849
Black and Mulatto.....	145	137	118	127	146	134	153	155	151	122	155
Male.....	74	88	55	63	72	63	77	83	77	59	75
Female.....	71	79	63	64	74	71	76	72	74	63	80

Color or race.	11 years.	12 years.	13 years.	14 years.	15 years.	16 years.	17 years.	18 years.	19 years.	20 years.	Aggre- gate.
Total.....	1,825	1,902	1,650	1,568	1,534	1,723	1,652	1,749	1,968	1,909	40,583
White.....	1,704	1,724	1,507	1,461	1,385	1,577	1,487	1,557	1,747	1,655	37,354
Male.....	783	865	753	717	673	768	745	745	831	776	18,298
Female.....	921	859	754	744	712	809	742	812	916	880	19,056
Black and Mulatto.....	121	178	143	127	149	146	165	192	221	244	3,229
Male.....	55	91	67	65	66	60	87	66	90	122	1,534
Female.....	66	87	76	62	83	86	78	126	122	122	1,695

<sup>1</sup> Includes all colors or races except Black and Mulatto.

For purposes of discussion a regrouping of the census data follows:

#### *Regrouping of census data.*

	White.	Colored.	Total.
Children 6 years of age.....	1,905	153	2,058
Children 7 to 13, inclusive (compulsory period).....	11,764	1,025	12,789
Children 14 to 18 (above compulsory period).....	7,467	779	8,246
Total.....	21,136	1,957	23,093
Children 15 to 18 (high-school age).....	6,006	652	6,658
Children 14 to 15 (work-permit age).....	2,446	276	3,122

In order to learn what proportion of the population falling within the compulsory school period was enrolled in schools, the commission

secured a report of all children, according to age, enrolled in all public, private, and parochial schools in Wilmington. These data, arranged to correspond with the preceding table, follow:

*Enrollment in all schools of Wilmington, 1920; distributed by age groups.*

	Public schools.			Total in all private schools.	Total in all parochial schools.	Grand total.
	White.	Colored.	Total.			
Children 6 years of age.....	1,344	163	1,507	49	523	2,079
Children 7 to 13, inclusive.....	8,538	1,082	9,620	364	3,988	13,972
Children 14 to 18, inclusive.....	2,127	331	2,458	119	521	3,098
Total.....	12,009	1,576	13,585	532	4,032	19,119
Children 15 to 18, inclusive (high-school age).....	1,221	190	1,411	88	240	1,739
Children 14 to 15 (work-permit age).....	1,449	236	1,685	68	45	2,118

A comparison of the two tables shows certain discrepancies. According to the census report, there were 2,058 children 6 years of age, and according to the school registers there were 2,079, or 21 more enrolled than were accounted for by the census. For the age group 7-13, inclusive, there were by the census 12,789 children, and by the school registers 13,972 enrolled, or 1,183 more than were accounted for by the census. These discrepancies may be accounted for by the fact that the Federal Census Bureau included the children in Wilmington on a particular date, while the enrollment figures include all the different children enrolled during the year. Since the population of Wilmington was a shifting one, children having enrolled and having moved away before, and others having moved in after, the census was taken, the school enrollment naturally showed more children than would be in the city at the particular date when the Federal census was taken.

No such discrepancies occur in the age groups above 13 years. There were by the census 8,246 children 14 to 18 years of age, only 3,098 of these being in school. Thus it is evident that at least 5,148 children from this age group are out of school. All these are above the compulsory age limit. Some of this group, especially those 14 years of age, would belong to the elementary school. The majority of those above 14 belong to high school, but comparatively few are to be found there. The census gives 6,658 children 15 to 18, inclusive; the school registers of public, private, and parochial schools show only 1,739 belonging to this age group, leaving 4,919 children of high-school age out of school. No doubt the number on the school register for this age group is too high, as in the case of other age groups, and for the same reason—that the data comprise all children enrolled for the year, while the census includes only children who were in Wilmington on a particular date.

## IRREGULARITY OF ATTENDANCE IN PUBLIC SCHOOLS.

Although apparently nearly all the children of compulsory school age are enrolled in public, private, or parochial schools, the attendance is not what it should be in either the white or the colored public schools. The average number of days attended for the white schools was 144 days and for the colored schools 133 days. The schools were in session 183 days, so that each child in the white schools lost on an average 37 days and in the colored schools 50 days of the term. The average number of "days belonging," by white children was 160 and by the colored, 159, so, on an average each white child lost 16 days and each colored child 26 days of the time for which he was enrolled.

Stated in another way the actual working school year for white schools in Wilmington was only 144 days and for colored schools only 133 days, yet the schools were open more than 180 days. Since each white child lost 16 days and each colored child 26 days, there was a total loss of 232,440 days, which, translated into money loss on the basis of per capita operating cost, amounts to approximately \$45,000.

In other words, if every child had been perfect in attendance the cost would have been no more than it actually was, but the educational returns would have been much greater.

In order to show how well the children attended school the following table was compiled, which shows the number attending from 1 to 10 days, 11 to 20, and so on:

*Distribution of attendance in public schools.*

Days attended.	Number of white children.	Number of colored children.
1-10.....	78	13
11-20.....	102	23
21-30.....	132	30
31-40.....	132	22
41-50.....	137	24
51-60.....	157	37
61-70.....	219	51
71-80.....	242	40
81-90.....	325	59
91-100.....	214	48
101-110.....	204	55
111-120.....	232	66
121-130.....	371	88
131-140.....	520	101
141-150.....	820	143
151-160.....	1,467	161
161-170.....	2,512	258
171-180.....	3,706	307
181-190.....	419	44
	11,989	1,570

## ENFORCEMENT OF THE ATTENDANCE LAW.

A first essential step in the enforcement of the compulsory attendance law is to learn how many children of school age there are in the city. This information can be secured only through the taking of a school census at definitely stated times. Such a census should show: (1) How many children there are who ought to be in school; (2) where they live; (3) how many are enrolled in the public, in private, and in parochial schools. Much other valuable information can likewise be obtained which when analyzed will provide the school authorities with dependable basis for drawing conclusions regarding many problems relating to the administration of the system.

Furthermore, if the school board had been having a census taken annually or even at less frequent intervals, and if they had analyzed the returns, they would have known better where to locate school buildings for they would have known where the school population was increasing most rapidly.

## A CUMULATIVE CENSUS CARD.

Supplementary to a formal census canvas of the city made at given intervals the attendance department should make and keep up to date cumulative family record cards each of which should contain besides other social data the name, address, sex, age, nativity, whether attending public, private, or parochial school, class of such school; the reason for not attending school, if employed, where and how, and a brief statement of the school history of every child in the family. This family record card should be made in duplicate, one copy to be retained in the office of the chief of the attendance department and the other to be kept on file with the principal of the school attended by the children.

These cards should be kept up to date by adding the names of children moving into the city and entering school after the annual census has been taken. If this is done the whereabouts of every child of school age can be known at all times and the essential facts about each can be secured upon a moment's notice.

After the annual census has been taken it should, early in the school term, be checked against the enrollment in the public, private, and parochial schools to ascertain what children are out of school. This being known the attendance officers can visit the homes of these children to inquire why they have not entered school. As already mentioned, the census report, if kept in permanent form, is of inestimable value not only in enforcing laws having to do with compulsory attendance, with child labor, and with the granting of work



permits, but it will give valuable information regarding the growth of the city, the direction this growth is taking, and the changing and shifting character of the population—information which is essential if the board is to plan wisely far enough ahead to provide

[SAMPLE CENSUS CARD.]

1	NUMBER	STREET	FLOOR	TM.	NUMBER	STREET	FLOOR	TM.
2								
3								
4	LAST NAME OF FATHER (OR PERSON IN PARENTAL RELATION, IF MALE)				GIVEN NAME			
5	LAST NAME OF MOTHER (OR PERSON IN PARENTAL RELATION, IF FEMALE)				GIVEN NAME			
6	LAST NAME OF CHILD				GIVEN NAME			
7	BORN MO.	DAY	YR.	AGE	CRIPPLE	DEAF	DUMB	BLIND
8	YES	NO	YES	NO	YES	NO	YES	NO
9	MENTALLY ILL	RETARDED	YES	NO	READS OR WRITES ENG.	OTHER LANG.	WORKING	HOW LONG
10	NAME OR NUMBER OF SCHOOL NOW ATTENDED				LOCATION			
11	NAME OF EMPLOYER				EMPLOYER'S BUSINESS ADDRESS			
12	YRS. EMP.				NATURE OF EMPLOYMENT			
13	BLOCK NO.				SCHOOL CENSUS			
14	ENUMERATOR				SCHOOL CENSUS			

the necessary school accommodations by the time they are needed—something the Wilmington board has not done, possibly because it did not know anything definite about the school population of the city.

**THE WORK OF THE ATTENDANCE OFFICERS.**

Up to March, 1919, in Wilmington, no real attempt was made to enforce the compulsory-attendance law which had been on the statute books for several years. In March, 1919, three truant, or attendance, officers were employed by the school department.

Each officer is assigned a district and required to visit each school twice a week and to telephone once a week. Principals may, however, call the attendance officers at any time. These officers visit the homes of children who are irregular in attendance and endeavor to persuade the parents to send their children to school regularly. A record and the result of each visit is kept by a card system. If the parent does not comply with the request, formal notice is served; and if no attention is paid to this notice, he is summoned before the justice of peace for a hearing.

Since the employment of the attendance officers school attendance has improved. During the year 1919-20 there were reported to these officers, 4,975 cases of irregular attendance. Of these, 4,399 were returned to the public schools and 62 to private schools. In addition, 418 truants were put in schools. Only 97 of these might be classed as habitual. That the attendance officers were busy is evident from the fact that they made 4,910 visits to homes, 1,359 to schools, 25 to the courts, and 161 miscellaneous, making a total of 6,459, or 2,153 for each officer, or an average of 12 visits a day, which is a large number in view of the fact that each district is large and usually much territory had to be traversed to visit the homes.

Legal notice was served upon 840 parents, 14 were prosecuted with costs and fines, and 2 were dismissed. From the foregoing it is evident that the compulsory attendance division has rendered a genuine service to the schools of Wilmington.

By referring to the Federal census and the school register data, and by taking into account the cause of the discrepancy found between the census and enrollment, it would seem probable that nearly all the children of compulsory attendance age in Wilmington enroll in some school. The Federal census data show, too, that only 96 children from 7 to 13 years of age, inclusive, are reported as not having enrolled in school some time within the school year, from September, 1919, to January, 1920.

**SOME DIFFICULTIES IN ENFORCING THE LAW.**

One great difficulty lies in the fact that the officers have no means of knowing what children do not enroll, except as they may discover them by inquiry among children in school who may know of some who are not in school. As elsewhere recommended, a school census would enable these officers to locate every child and place him in school if he has no good reason for being absent.

Another difficulty in the enforcement of the law is that there is no cooperation between the attendance officers and the private and parochial schools. Of course the Wilmington board of education has no administrative relation with these schools, but it is the duty of the board to see that every child of compulsory attendance age is in school somewhere and that he attends regularly.

The attendance department does not even know how many children are enrolled in private and parochial schools, much less how well they attend. There is no system of transfer from private to public schools. Children who leave the public schools to enter private or parochial schools are followed up to see that they enter these, but there is no such follow-up when a pupil leaves the private or parochial school since the attendance officers are not notified that it is the intention of the pupil to transfer.

Before it is possible to have all the children of compulsory school age in school and in regular attendance the Wilmington school board must provide a sufficient number of attendance officers to include the children in all private and parochial schools. It is inconceivable that any legislative body would pass a compulsory attendance law so that those parents who enroll their children in private or parochial schools may keep them out at any time and for any reason. It is inconceivable that John Smith, who sends his children to public school, is fined because he does not keep them in school the required time, while John Jones, who sends his children to a private school, may keep them at home as much as he pleases. For the Wilmington school board to compel all children of compulsory age to attend school according to the provision of the law would in no way interfere with the administration of the private and parochial schools. This fact must be remembered: That the law provides that every parent of children from 7 to 14 years of age must send them to some school. What school is not a matter that concerns the school board so long as the children are receiving instruction equivalent to that given in the public schools.

Another difficulty needs to be pointed out. The compulsory attendance law under which Wilmington is operating permits a child to leave school at 14 years of age, no matter what grade he has completed, even if it is only the first or no grade at all. The child-labor bureau, however, does not issue work permits to children 14 years of age unless they have completed the fifth grade. Thus children 14 years of age who have not completed the fifth grade and who have quit school are not permitted to work. Such children may roam the streets so far as the compulsory attendance department of the Wilmington schools is concerned.

The compulsory attendance law, under which Wilmington is operating, and the child labor law should be made to harmonize so that children from 14 to 16 years of age must be in school or at work.

#### HOLDING POWER OF THE SCHOOLS.

Most of the pupils enrolled remain in school until they become 14 years of age. The number in school is practically constant from 6 to 14 years of age. At the age of 14 there is a falling off; at 15 there are not half as many in school as at 13. Conditions in this respect in Wilmington are practically the same as in 42 other cities of more than 25,000 population, as may be seen in the following table:

*Total net enrollment in Wilmington public schools, 1919-20, distributed by ages.*

Ages.	Pupils.	Percent- age of total en- rollment.	Percent- age in 42 cities.
5.....			1.6
6.....	1,497	11.0	10.2
7.....	1,438	10.6	10.8
8.....	1,346	10.0	10.6
9.....	1,250	9.2	10.6
10.....	1,324	9.7	10.4
11.....	1,446	10.7	9.9
12.....	1,406	10.4	9.7
13.....	1,411	10.4	9.4
14.....	1,047	7.7	7.1
15.....	638	4.6	4.5
16.....	368	2.7	2.6
17.....	214	1.6	1.6
18 and over.....	191	1.4	1.0
Total.....	13,575	100.0	100.0

#### ELIMINATION BY GRADES.

Children in Wilmington are staying in school until the seventh grade, when they begin to drop out rapidly, so that in the eighth grade almost half have gone, and in the fourth year high school only about one-sixth survive, as may be seen from the following table, which shows the number of pupils among each hundred beginners who are in school at each grade:

*Number of pupils in each grade for every 100 pupils entering first grade.*

Grades.	Wilmington.		42 other cities, 1919.
	1913-14	1919-20	
1.....	153	174	154
2.....	122	118	121
3.....	129	123	121
4.....	122	122	123
5.....	103	120	114
6.....	89	137	108
7.....	83	98	90
8.....	53	54	74
I.....	57	56	58
II.....	32	32	36
III.....	20	20	24
IV.....	13	16	19

For every 100 beginners there are 174 in the first grade, 54 in the eighth, and 16 in the fourth year high school. The number in excess of 100 in the lower grades represent the holdovers. This is not as good a showing as is made by 42 other cities, where there are, for every 100 beginners, 154 in the first grade, 74 in the eighth, and 19 in the fourth year high school. In Wilmington there is more of a clogging process in the first six grades, and then as soon as the children are 14 years of age the average ones begin to drop out. The schools are, however, holding the pupils one or two years longer than in 1913, when the eliminating process began in the fifth and sixth grades, while in 1919 it did not begin until the seventh grade.

This table shows that practically no greater proportion entered the eighth grade and all grades above in 1920 than in 1913, but that a larger proportion entered in the fifth, sixth, and seventh grades. In the primary grades the proportion of holdovers is about the same as in 1913; that is to say, the only point where the system has gained in the effectiveness of its holding power during the period from 1913 to 1920 is in the fifth, sixth, and seventh grades.

In comparing Wilmington with the average of 42 other cities of the country in respect to this matter, this is to be observed: That in the first grades the number of repeaters is about the same; that in the sixth and seventh grades the repeaters in Wilmington in 1920 ran higher than the average of the 42 cities; and that from the eighth grade up through the high school the schools hold proportionately fewer pupils than do the schools of the 42 cities with which Wilmington is compared.

#### 4. THE PROGRESS OF CHILDREN THROUGH SCHOOL.

There are in Wilmington, 334 whites and 313 colored children 3 years or more years over age for their respective grades. If the same law were in force in Wilmington as in New Jersey, that all children 3 or more years over age be placed in special classes, about 30 such classes would be necessary. Under present conditions, with respect to school buildings and lack of classrooms, no provision can be made even for the mentally defective, not to mention pupils who have become over age for other reasons.

In the next few paragraphs attention is called more in detail to the amount of retardation in the Wilmington schools, its special significance, and the methods of reducing it.

Since the elementary school course of study is 8 years in length, a child entering at 6 years of age should complete the course at 15. In the compilation of the age-grade data for the Wilmington schools, children of the first grade who are 6 and 7 years of age are

considered normal, all 8 years of age and over, over age. In the second grade, children under 7 years of age are considered under age, all 7 and 8 years of age, normal, and all 9 or more years, over age, and so on through the grades, allowing two years for normal age, or 9 years for a child entering at 6 to complete the elementary school course. This is a liberal allowance for normality, but it is the basis upon which most age-grade studies have been made and is used in this report so that Wilmington may be compared with other cities in respect to the age of the children for their respective grades.

The following tables show the distribution of public school children by age and grade, also the number and per cent of children under age, of normal age, and over age for their respective grades:

*Age-grade distribution of enrollment (white schools), 1919-20.*

Grades.	Ages.													Total.
	6	7	8	9	10	11	12	13	14	15	16	17	18	
1.	1,254	559	146	43	12	6	3	2	2					2,027
2.	79	627	379	160	60	23	17	4	3	1				1,373
3.	1	71	572	411	208	88	37	19	2	2				1,411
4.		11	86	441	412	248	122	78	25	3	2			1,428
5.			1	2	55	389	437	207	159	76	14			1,340
6.					1	69	456	439	344	167	33	8		1,518
7.					3	63	364	358	210	59	9	2		1,068
8.						1	42	238	198	95	16			590
I.							16	49	191	206	98	40		609
II.									29	114	99	55	19	316
III.									3	14	63	61	41	182
IV.										2	11	45	108	166
Total.	1,334	1,269	1,185	1,111	1,153	1,322	1,247	1,251	906	543	306	203	169	11,999

*Age-grade distribution of enrollment (colored schools), 1919-20.*

Grades.	Ages.													Total.
	6	7	8	9	10	11	12	13	14	15	16	17	18	
1.	151	106	59	37	26	6	4	4		3	1			397
2.	10	58	58	39	23	12	19	17	6	3	1			246
3.	2	5	41	34	45	22	36	16	19	8				228
4.			2	19	36	21	24	27	20	5	3			157
5.				10	37	41	43	34	25	11	7			208
6.					3	16	23	32	21	25	5			125
7.					1	6	10	24	33	11	4			89
8.									10	13	15			38
I.								6	5	6	11		4	32
II.									2	7	5	5	6	25
III.										3	10	4	10	27
IV.												2	2	4
Total.	163	169	160	139	171	124	159	160	141	95	62	11	22	1,576

*Summary of age-grade distribution (white schools).*

Grades.	Number.				Per cent.		
	Under age.	Normal age.	Over age.	Total.	Under age.	Normal age.	Over age.
1.....		1,813	214	2,027		89.44	10.56
2.....	79	1,006	268	1,353	5.83	74.35	19.82
3.....	72	983	356	1,411	5.10	69.66	25.24
4.....	97	853	478	1,428	6.79	59.73	33.48
5.....	58	826	456	1,340	4.32	61.64	34.04
6.....	70	895	553	1,518	4.61	58.95	36.44
7.....	66	722	280	1,068	6.17	67.60	26.23
8.....	43	436	111	590	7.28	73.89	18.83
I.....	65	397	138	600	10.83	66.16	23.01
II.....	29	213	74	316	9.17	67.40	23.43
III.....	17	124	41	182	9.34	68.13	22.53
IV.....	13	153		166	7.84	92.16	
Total.....	609	8,421	2,969	11,999	5.07	70.18	24.75

*Summary of age-grade distribution (colored schools).*

Grades.	Number of pupils.				Per cent.		
	Under age.	Normal age.	Over age.	Total.	Under age.	Normal age.	Over age.
1.....		257	140	397		64.76	35.24
2.....	10	116	120	246	4.07	47.15	48.78
3.....	7	75	146	228	3.07	32.89	64.04
4.....	2	55	100	157	1.26	35.03	63.71
5.....	10	78	120	208	4.80	37.50	57.70
6.....	3	39	83	125	2.40	31.20	66.40
7.....	7	34	48	89	7.86	38.20	55.94
8.....		10	28	38		26.31	73.69
I.....	6	11	15	32	18.75	34.37	46.88
II.....	2	12	11	25	8.00	48.00	44.00
III.....	3	14	10	27	11.11	51.85	37.04
IV.....		4		4		100.00	
Total.....	50	705	821	1,576	3.17	44.73	52.10

It may be noted that many children are over age, the average for the school system, including the high school, being 52.1 per cent. This, however, is somewhat above the average for cities of Wilmington's class, as may be seen in the accompanying chart.

If there were no children more than one or two years too old for their grades the situation in Wilmington would not be serious, but there are 384 white children and 313 colored children three or more years over age, distributed by grades as follows:

*Number of children three or more years over age.*

Grades.	Colored.		White.	
	Number.	Per cent.	Number.	Per cent.
1.....	44	11.0	25	1.2
2.....	58	23.5	48	3.5
3.....	79	34.6	60	4.2
4.....	55	35.0	108	7.5
5.....	43	20.6	90	6.7
6.....	30	24.0	42	2.7
7.....	4	4.5	11	1.0
8.....	0	.0	0	.0
Total.....	313	19.8	384	3.6

*Number and per cent. over age, by years.*

	Years over age.				
	1	2	3	4	5 (or more)
Number, white.....	1,618	714	268	91	25
Per cent.....	13.5	5.9	2.2	.8	.2
Number, colored.....	283	187	155	77	73
Per cent.....	18.1	11.9	9.8	4.9	5.1
Total, white and colored.....	1,901	901	423	168	98
Per cent.....	14.0	6.6	3.1	1.2	.7
Per cent of retardation.....	12.7	5.3	1.9	.6	.3

The distribution for the white schools of Wilmington is practically the same as for the 80 cities, but the over-age colored children cause Wilmington to make a poorer showing than the 80 cities.

Expressed in another way, the seriousness of those three or more years over age may be seen in the following table, which shows the number of children 16 years of age who have not reached the eighth grade, the number 15 years of age who have not reached the seventh grade, and so on:

*Children of given ages who have not reached given grades.*

White.			Colored.		
Number of children.	Age.	Grade not reached.	Number of children.	Age.	Grade not reached.
22.....	16	Eighth.	21.....	16	Eighth.
53.....	15	Seventh.	55.....	15	Seventh.
108.....	14	Sixth.	70.....	14	Sixth.
103.....	13	Fifth.	64.....	13	Fifth.
57.....	12	Fourth.	50.....	12	Fourth.
29.....	11	Third.	11.....	11	Third.
12.....	10	Second.	26.....	10	Second.

It is safe to assert that none of these children will complete the eighth grade. None of the Wilmington children now in the eighth grade are more than two years over age. Indeed, very few in this grade are two years over age, most of the over-age children having dropped out before reaching the eighth grade.

**SIGNIFICANCE OF RETARDATION.**

An important factor in the consideration of the efficiency of the Wilmington school system, and in fact any school system, is the extent to which children are under age, of normal age, and over age for their respective grades. The seriousness of retardation is concerned chiefly with the results to the child himself, the educational loss to the city, the State, and the Nation, and the financial loss which comes from the added expense of carrying a pupil over the



same work two or more times. Of these, the first two are of the most importance. The child becomes discouraged and leaves school as soon as the compulsory attendance law will permit, while the community loses the possibility of adding to its population an educated citizen.

Children who leave school at the close of the first, second, or third year of school miss the larger part of the education which the city provides for its children, and they do not receive the minimum amount which is by general agreement considered necessary as preparation for intelligent citizenship. Many children in Wilmington do not advance far enough to acquire the permanent habits which the school aims to inculcate, and the little education acquired is not sufficient for ordinary needs.

The injury of retardation is not confined to the fact that the children leave school early and are therefore deprived of an education, but to the fact that while they do remain in school the instruction is not adapted to their abilities. They do not, therefore, receive full benefit for the time which they devote to school, and since they are improperly classified they are a burden to the teacher and a handicap to the pupils who are making normal progress. This classification means that the teacher either neglects the backward children, or else devotes to them the time needed for the proper advancement of the bright children.

#### CONDITIONS IMPROVING.

Simply to show present conditions with respect to retardation in Wilmington would be exceedingly unfair in view of the fact that the percentage of retardation is much less now than it was several years ago, as may be seen from the following table:

*Showing retardation for a period of one year.*

Ages.	1913-14		1917-18		1919-20	
	White.	Colored.	White.	Colored.	White.	Colored.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Under age.....	1.6	4.6	2.5	1.5	4.5	2.6
Normal age.....	58.7	48.0	67.0	55.9	70.2	44.7
Over age.....	39.6	47.6	30.6	42.6	25.3	52.7

In the white schools there is now a greater proportion of under age and normal age children and a smaller proportion of over age than in 1913. In the colored schools there has been practically no change. This is explained by the fact that during the war many Negro children who had never been in school, or at least only intermittently, moved to Wilmington. There being no special classes for children over age, they were placed in the grade to which their scholastic at-

tainments entitled them, with the result that many children 10, 11, 12, and 13 years of age were placed in the primary grades. If this condition had not arisen the amount of retardation in the colored schools would undoubtedly have been reduced as it was in the white schools.

#### METHODS FOR REDUCING AMOUNT OF RETARDATION.

There are now in Wilmington fewer over-age children than in 1913, because the promotion system has been made more flexible and more children are promoted, as may be noted in the section of this report treating of promotion.

Six elementary summer schools have been organized, to which children who fail in one or two subjects, who have passed but need strengthening, and who may be able with a little extra work to skip a grade, are admitted. During the summer of 1920 there were 463 children enrolled, the average attendance being 329. Of those enrolled 277 worked off conditions, 130 were strengthened, 16 were enabled to skip a grade, and 40 failed. The organization of these summer schools is a forward step, and they have done much to lower the amount of retardation. More should be established and the term gradually extended so that the school children of Wilmington may have the opportunity of attending school 48 weeks a year, as recommended in another part of this report.

Special classes should be provided so that children who are a burden to a room may be removed and given instruction suited to their abilities and needs. But special rooms are out of the question under present congested conditions. Not until after new buildings are erected can much be done to provide special classes for those children needing special help.

This much, however, can be done. The children in a room can be grouped so that the slow-moving older pupils need not be in the same class with the younger and brighter children. If there are, for instance, three first grades in a building, the children can be divided into six groups, thus making only about a six weeks' interval between groups. With such arrangement a child need not be held until the end of the term and be required to repeat a half year's work. He can be dropped back to the group just below when he shows that he can not keep up with the group that he is in, or if he shows special ability he can be advanced to the group above.

An experiment now under way in Wilmington promises much to diminish retardation. In two buildings the teachers are advanced with their classes for a period of two years. As yet no statistical facts are at hand to show whether a greater proportion of pupils are promoted under this plan than under that of having the teacher re-

main year after year in the same grade. The teachers who have been advanced with their classes speak enthusiastically of the plan, saying that they are now enabled to promote more children because of the fact that they know them better. These teachers say that they now often promote children who, if they had to be sent to a new teacher, would be held back. This is possible because teachers know the weakness of the children in question and know just what work is necessary to bring them up to the standard, whereas a new teacher would not. It is also claimed that much time is saved at the beginning of each term, because no review is needed to ascertain just what the children have studied. All the reviewing that is necessary is to refresh the minds of the pupils after a few months' vacation.

The plan of advancing the teacher with the class having proved successful in the two schools, it should be extended to other buildings as rapidly as possible, for it will without doubt assist in reducing the amount of retardation, in addition to the other advantages that come from a teacher's being with her class for several years. Teachers may well be promoted with the children through three or four years. Experience in many places has proven the value of this.

#### PROMOTIONS IN ELEMENTARY GRADES.

The promotion rate has been much increased in both the white and colored schools. In June, 1915, only 85 per cent of the white pupils were promoted; in June, 1920, the promotion rate reached 91 per cent, which is about as high an average as it is possible to secure, since there always will be some children in a graded school who must for one reason or another repeat a term's work. In June, 1915, only 72 per cent of the colored children were promoted; in 1920 the per cent promoted was 81.

The following table shows the promotions in the elementary schools distributed by grades in June, 1920:

*Promotions in the elementary grades, June, 1920.*

Grades.	White schools.				Colored schools.			
	Number belonging.	Number promoted.	Number failed.	Per cent of promotion.	Number belonging.	Number promoted.	Number failed.	Per cent of promotion.
First.....	1,384	1,268	116	92	241	213	28	88
Second.....	1,230	1,152	78	94	213	171	42	80
Third.....	1,251	1,165	84	93	192	158	34	82
Fourth.....	1,234	1,149	82	93	142	128	14	90
Fifth.....	1,262	1,159	93	93	146	129	17	88
Sixth.....	1,035	946	89	91	116	89	27	77
Seventh.....	730	605	125	83	53	57	26	67
Eighth.....	485	361	74	83	47	35	12	74
Total.....	8,561	7,815	741	91	1,180	980	200	81

A glance at the table reveals a much lower promotion rate in the seventh and eighth grades in both the white and the colored schools than in the first six grades. There is possibly no explanation for this except that the teachers in these two grades have too high standards for promotion, or possibly these grades are not supervised as carefully. Eighty-four per cent is too few to promote in any school. The average in the seventh and eighth grades should be at least 90 per cent, or as high as in the lower grades.

There is considerable variation among buildings in respect to promotions, ranging from 84 in one school to 97 per cent in another. The lower ratios are usually in the buildings where the grammar grades are housed.

#### CAUSES OF FAILURES.

Many things contribute to the failure of pupils, not the least of these being irregular attendance. Many of these failing in June attended only part of the term. The fact that poor attendance is the cause of many failures is self-evident. The following table made up from teachers' reports for several years on the cause of nonpromotion shows a number of causes, not the least being absence from school:

*Nonpromotions and causes—Elementary schools.<sup>1</sup>*

Causes.	1915	1916	1917	1918	1919
Absence.....	394	539	490	291	270
Change of schools.....	70	49	28	27	24
Outside interests or work.....	11	16	17	24	17
Late entrance.....	61	64	52	37	29
Indifference.....	149	186	202	176	224
Work of grade too difficult for mental capacity.....	476	431	355	360	323
Mental deficiency.....	37	38	31	46	36
Immaturity of pupils.....	34	0	15	18	13
Poor physical condition.....	200	174	128	62	82
Other causes.....	16	59	10	47	20
Total.....	1,518	1,587	1,367	1,173	1,165

<sup>1</sup> As reported by teachers.

It may be noted that work which was too difficult for pupils who were not really mentally deficient but rather mentally retarded or were slow to grasp ideas caused many failures. These children need special attention in classes for children in what might be termed "opportunity classes." Indifference is another cause of nonpromotion. This no doubt means that the classroom instruction is not adapted to this group of children. Many of this group might, however, be classed with those who are weak physically. Condition of buildings and lack of modern equipment is another reason for indifference and "incapacity."

In brief, the foregoing report of the teachers giving causes of nonpromotion makes it evident that many children who fail could be

helped. This brings us back to recommendations made elsewhere in the report, that special rooms be provided. But again we are confronted with the question, "Where?"

#### METHODS OF PROMOTION.

Pupils in the elementary schools of Wilmington are not promoted on marks made in formal examinations, but upon the kind of work the pupil does from day to day. In brief, the teacher decides whether a pupil can do the next grade work. In doubtful cases the teacher and the principal confer and decide whether it is better for a pupil to be promoted or to be retained in the grade. Of course, occasional tests are given and are used in arriving at a decision in regard to a pupil's promotion, but they fortunately do not count three-fourths, a half, or a fourth, as is the custom in some school systems. The higher promotion rate is possibly due to the fact that formal examinations have been abolished and that a pupil's fitness for promotion is determined by his daily recitations and his ability to do the work of the next grade. It is, indeed, a commendable feature of the school system that promotional examinations have been abolished. These formerly consumed much time that could have been used for teaching purposes. It was a process of pulling up the plant to see whether it was growing.

#### 5. TRAINING OF ELEMENTARY TEACHERS AND THEIR SALARY SCHEDULE.

The minimum educational requirements for entering the elementary teaching corps of the Wilmington schools consist of graduation from a four-year high school and two years of professional preparation. There are, however, many teachers in the corps who have not had this amount of preparation, for the standard now demanded is higher than it was several years ago. There are teachers in the Wilmington schools who had three years or less high school work and a year or less of professional training at the time they were employed by the Wilmington school board. These facts are set forth in the following table.

The tables following give the distribution of the number of years of education which teachers and principals receive above the eighth grade.

*Education of elementary teachers when they entered the Wilmington schools.*

Extent of training.	Principals, white and colored.		White teach- ers.		Colored teach- ers.	
	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.
Less than 4-year high school.....	1	4.2	7	2.6	1	2.6
Four-year high school only.....			8	2.9	3	7.6
Less than 4-year high school plus some advanced work in normal or college.....	11	45.8	55	20.2	4	10.2
Four-year high school plus some advanced work in normal or college.....	3	12.5	20	7.5	0	0
Less than 4-year high school plus—						
1-year normal.....	6	25.0	22	8.2	3	7.6
2-year normal.....			18	6.6	3	7.6
3-year normal.....			16	5.9		
4-year normal.....			7	2.6		
Four-year high school plus—						
1-year normal.....	1	4.2	34	12.6		
2-year normal.....	1	4.2	62	22.8	22	56.8
3-year normal.....			2	.7	1	2.5
Less than 4-year high school plus 2-year college.....			1	.4		
Four-year high school plus—						
1-year college.....			1	.4		
2-year college.....			4	1.4		
3-year college.....			1	.4		
4-year college.....			6	2.2	2	5.1
5-year college.....	1	4.1				
Less than 4-year high school plus—						
1-year normal and 1-year college.....			3	1.1		
2-year normal and 1-year college.....			2	.7		
Four-year high school plus—						
1-year normal and 1-year college.....			1	.4		
2-year normal and 2-year college.....			1	.4		

*Distribution of total number of years of schooling above eighth grade received to date by elementary teachers (white and colored).*

Years of schooling.	White teach- ers.		Colored teach- ers.		White and col- ored com- bined.		Per cent other cities. <sup>1</sup>
	Num- ber.	Per cent.	Num- ber.	Per cent.	Total num- ber.	Per cent of total.	
Less than 1 year.....	6	2.2			6	1.9	0.5
1 year.....	2	.7			2	.6	.9
2 years.....	6	2.2	1	2.6	7	2.2	2.1
3 years.....	46	16.9	4	10.2	50	16.1	3.3
4 years.....	53	19.5	10	25.6	63	20.4	12.8
5 years.....	58	21.5	3	7.7	61	19.8	11.4
6 years.....	86	31.8	18	46.1	104	33.6	52.9
7 years.....	6	2.2	1	2.7	7	2.2	8.8
8 years or more.....	8	3.0	2	5.1	10	3.2	7.3
Total.....	271		39		310		

<sup>1</sup> From a study of 359 cities in, *Know and help your schools*, by National Committee for Chamber of Commerce, p. 24.

*Years of schooling, by quartiles.*

Quartiles.	White teachers.	Colored teachers.	White and col- ored.	Teachers in other cities.
Lower quartile.....	4.1	4.5	4.2	5.5
Median.....	5.4	6.1	5.5	6.4
Upper quartile.....	6.4	6.6	6.4	6.8

*Total education above eighth grade of elementary school principals distributed by years.*

Number of years.	Number of principals.	Percentage of all principals.
1.....	0	0.0
2.....	2	8.3
3.....	2	8.3
4.....	5	20.9
5.....	9	37.6
6.....	2	8.3
7.....	1	4.1
8 or more.....	3	12.5
	24	.....

Lower quartile, 4.4; median, 5.3; upper quartile, 6.0.

It may be noted that 4.7 per cent of all the elementary teachers have attended school less than three years beyond the eighth grade, including time so spent after beginning to teach in Washington. Only 39 per cent have had six or more years' schooling, while 69 per cent of the elementary teachers in other cities have attended school six or more years beyond the eighth grade. The median number of years that the Wilmington teachers have had is 5.5, while the median for 47,121 teachers in other cities is 6.4, or 0.9 years more than for the teachers in Wilmington.

The elementary-school principals have not attended school more years than the teachers they are supervising. This is accounted for by the fact that many of the principals entered the Wilmington schools as teachers some years ago, some before there was a 4-year high-school course, and when the city training course was a year or even less in length. Many of the teachers, on the other hand, have recently come into the schools with four years of high-school work and two years of normal training, which are now required for entrance.

By referring to the table it may be seen that only 8.3 per cent of the principals had graduated from a 4-year high school and a 2-year normal school, or from college, before entering the Wilmington schools. Many of the principals have, however, since entering the service in Wilmington, added a year or more to their schooling. The median number of years' education upon entrance was 3.8 years; now it is 5.6 years, or an increase of 1.6 years. In the following section, treating of experience, it will be found that the principals have had many more years' experience than the teachers, which may make up for the lack of professional preparation, but, as pointed out elsewhere, principals should have special preparation for their work as supervisors.

Without question, elementary-school principals should be educated especially for supervision as well as for teaching. They should

be college graduates or the equivalent, and should have had, during their college course, several years' work in education, with special emphasis upon the subject of elementary-school supervision. They should also have some teaching experience, so that they may know what problems the classroom teacher has to solve and what methods are applicable in their solution. The principal who can not go into a classroom and teach effectively soon loses the respect of the teachers under his or her supervision, but being able to teach in itself does not make a teacher a capable principal. He or she must know how to instruct others in the principles and art of teaching, how to arouse interest among teachers and parents, and how to do many other things that are not required of a teacher.

When the elementary school principals are judged by the standard of education and experience, they are "short" on educational qualifications and "long" on experience. The plan of promoting teachers to principalships is largely responsible for this situation. For some years it has been the custom to grant what are known as principal's certificates to teachers of some years' experience. Thus there is usually a list of teachers waiting to be promoted to principalships as vacancies occur.

There is no need of granting such certificates. A standard college graduation with courses in educational supervision and several years' teaching experience should be set and adhered to. If any of the teaching corps reaches the standard and has the other necessary qualifications for the principalship, he or she should be considered for the position. The superintendent should, however, feel free to go anywhere to select principals for the elementary schools, just as he may go anywhere for supervisors of special subjects. The principalship is the most important supervisory position in the elementary school system. It is through the principals that the superintendent must work.

If because of a lack of training they are not capable of understanding and of putting into operation the recommendations of the superintendent, the school system fails; a weak principal, a weak school.

Everything considered, the survey commission strongly recommends that the school board should hereafter demand higher educational and professional qualifications for the most important supervisory position in the Wilmington school system—the elementary school principalship—that the plan of promoting to this position teachers with no especial preparation for supervision be discontinued, and that principals be brought in from other places if no one in the school system has the necessary educational and professional qualifications.



### IMPROVEMENT IN SERVICE.

Considering the salaries that have been paid the elementary teachers in Wilmington it is surprising to find that any have attended summer sessions at normal schools and colleges. Of the white elementary teachers, 32, and of the colored, 20 have attended one or more summer sessions since entering the service in Wilmington. The number is not large, but large for the amount of salary that has been paid.

Much attention is, however, given to the professional growth of teachers in the system. Each elementary school principal holds two meetings a month to discuss such problems as may arise and to study several books intensively. There are also the usual grade meetings called by supervisors and principals. Besides this there is a teachers' association in which practically all the teachers are enrolled. During the year the association is addressed by persons of reputation in their respective fields.

The teachers also employ a specialist in some particular subject to give a course extending through a semester or the entire year. The school board did a commendable thing this year by making an appropriation of \$1,000 to assist in defraying the expenses of these special courses. The fund is divided so that the high school and elementary teachers may each have a third and the principals a third for the courses.

Since teachers may now attend summer sessions at Delaware College, with all expenses paid, one of the requirements for promotion should be that teachers attend a summer session at Delaware College or elsewhere every few years.

### EXPERIENCE OF ELEMENTARY TEACHERS.

The elementary teachers, white and colored, are not inexperienced, only seven never having taught before this year. The number of years of experience ranges from none to 48, the median being 9.1. The amount of experience within the Wilmington schools is, however, much less; 47 are teaching for the first time in the city, or about one-sixth of the teachers are new to the system. The range is from no years to 48, the median being 5.1 years or 4 years less than the total amount. One hundred and sixty-six have never taught outside the city.

The table following gives the distribution of the number of years of experience of elementary teachers and principals in Wilmington and elementary teachers in other cities.

*Experience of elementary teachers and principals of Wilmington compared with other cities.*

Years.	Principals as teachers.	As principals or supervisors.	Total.	Per cent.	Teachers.		Other cities.
					Number.	Per cent.	Per cent.
Less than 1 year.....	1	1	1	4.2	7	2.2	0.01
1 year.....		2			16	5.1	5.2
2 years.....	1	2			23	7.6	6.9
3 years.....	1	1			22	7.3	6.7
4 years.....		1			25	8.1	6.3
5 years.....					19	6.1	6.7
6 years.....		4			19	6.1	5.5
7 years.....		1			10	3.2	5.6
8 years.....					13	4.2	4.7
9 years.....					7	2.2	3.9
10 years.....	2				10	3.2	5.4
11 to 14 years.....	3	2			33	10.6	12.1
15 to 19 years.....	10	2	5	20.8	38	12.2	10.7
20 years and over.....	5	8	13	75.0	68	21.9	20.3
Total.....	23	24	24		310	100.0	100.0

*Years of experience, by quartiles.*

	Teachers in Wilmington.	Teachers in other cities.	Wilmington principals.
Lower quartile.....	4.4	5.0	20.0
Median.....	9.1	9.5	27.6
Upper quartile.....	19.2	17.9	30.6

Although the median amount of experience of elementary teachers in Wilmington is practically the same as in other cities, the teaching corps of Wilmington is a shifting one. From 1917 to 1919, inclusive, 171 teachers left the corps for various reasons; 68 to work at another occupation, 37 to teach elsewhere, 48 to get married, and 18 because they were informed that they would not be reelected. This has meant an average of 57 new teachers a year, or almost a fifth of the teaching corps. No doubt some of these resignations could have been prevented if salaries had been greater.

**WILMINGTON SALARY SCHEDULES, ELEMENTARY AND HIGH SCHOOLS.**

Not until 1920-21 did the board of education of Wilmington make any great response to the unparalleled rise in living cost by increasing the salaries of elementary and high school teachers. But in 1920 a schedule was adopted that placed salaries much beyond what they had ever been in Wilmington.

The table following shows the distribution of salaries for the years 1913-14, 1918-19, 1919-20, and 1920-21.

*Number of Wilmington teachers falling into various salary groups.*

Salaries.	Elementary teachers.				High-school teachers.			
	1913-14	1918-19	1919-20	1920-21	1913-14	1918-19	1919-20	1920-21
\$300-\$399	28							
400-499	23							
500-599	150							
600-699	22	66						
700-799	50	91	67					
800-899	2	66	17	3	6	1		
900-999	7	51	58		22	8		
1,000-1,099		6	47	54	6		5	
1,100-1,199		7	5	8		22	3	
1,200-1,299		1	8	43	3	2	30	
1,300-1,399			1	15			1	1
1,400-1,499		1	1	32		8	4	5
1,500-1,599			1	151	1		6	6
1,600-1,699				1				7
1,700-1,799				1		1		1
1,800-1,899				7			3	21
1,900-1,999								3
2,000-2,400								3
2,500-2,999								5
Minimum	350	600	700	850	850	850	1,000	1,350
Lower quartile	500	700	800	1,150	900	1,025	1,200	1,650
Median	525	750	825	1,450	900	1,150	1,250	1,850
Upper quartile	650	850	950	1,500	1,000	1,200	1,300	1,850
Maximum	900	1,400	1,500	1,850	1,500	1,750	1,800	2,500

The 1920-21 increase came so late that many good teachers had left to engage in more remunerative employment, and until the increase it was becoming more and more difficult to obtain qualified teachers. Whether the present salary schedule is sufficiently high to obtain and hold the type of teacher Wilmington needs is doubtful.

In the following tabulations comparing salaries paid in Wilmington with those paid in other cities the schedule of the year 1919-20 is used because of the fact that 1920-21 data are not at hand for the list. In this comparison it is seen that Wilmington ranks lowest among the eastern cities and next to lowest among southern cities.

*Median salaries paid elementary school teachers, 1919-20, in eastern and southern cities of 100,000 population and over, compared with those in Wilmington.*

Eastern cities.		Southern cities.	
Buffalo, N. Y.	\$1,809	Atlanta, Ga.	\$1,254
Worcester, Mass.	1,523	New Orleans, La.	1,234
Bridgeport, Conn.	1,421	Baltimore, Md.	1,186
Fall River, Mass.	1,518	Richmond, Va.	1,071
Yonkers, N. Y.	1,423	San Antonio, Tex.	1,060
Newark, N. J.	1,420	Memphis, Tenn.	1,025
Springfield, Mass.	1,373	Louisville, Ky.	980
Jersey City, N. J.	1,255	Wilmington, Del.	885
Lynn, Mass.	1,235	Roanoke, Va.	685
Rochester, N. Y.	1,210		
Paterson, N. J.	1,202		
Providence, R. I.	1,140		
Camden, N. J.	1,048		
Eric, Pa.	1,038		
New Bedford, Mass.	1,037		
Scranton, Pa.	985		
Trenton, N. J.	962		
Wilmington, Del.	885		

If none of the other cities have increased salaries for the year 1920-21, Wilmington, with a median of \$1,450 for elementary teachers, changes from lowest to seventh in rank among eastern cities and to highest rank among southern cities. Probably, however, most if not all the list increased during 1920-21. It is, however, not so much a question of what other cities pay as it is a question of what Wilmington should pay, so that it will no longer be compelled to employ teachers who have not had the necessary academic and professional preparation.

In order to accomplish this the minimum should be an amount upon which it is possible for a beginning teacher to live in some degree of comfort, and just as soon as she has shown evidence of strength she should be given an increase. The maximum amount should be such that teachers may be held and so that the salary dead line is not reached after a few years in service.

The Wilmington salary schedule now in operation meets requirements that there be considerable difference between the minimum and the maximum, but it is doubtful whether these amounts are high enough, the minimum being \$1,000 for teachers of high school and normal school preparation and the maximum \$1,800, which may be reached in eight years. A minimum of \$1,200 and a maximum of at least \$2,400 for elementary teachers would be a much better adjustment. By granting increases of \$100 a year it would take 12 years to reach the maximum amount.

The minimum salary for high-school teachers is \$1,350 and the maximum \$2,250.

The minimum should be not less than \$1,500 and the maximum not less than \$3,000, if well-qualified teachers are to be had and retained in service. Elementary-grade teachers, with the same academic and professional preparation, should be on the same salary schedule as high-school teachers.

#### METHOD OF PROMOTING TEACHERS.

The teachers of the city are classified by a committee composed of the superintendent of schools, the assistant superintendent, and the principal of the school in which the teacher is teaching into three classes, known as A class, B class, and C class, the A class representing the highest degree of efficiency and the C class the lowest. The salary of a teacher classed as A or B is increased annually until the maximum is reached, the rate of increase for A class teachers being \$100 a year and \$50 a year for B class teachers, class C receiving no increase.

The committee on classification of teachers goes over the record of each teacher. The principal of the school first makes a written

report to the superintendent, in which is set forth the principal estimate of the teacher on the following points: Professional growth; efficiency, management, and instruction; general merit—English, attitude, cooperation, thought stimulation, insight into child welfare; results—general, specific; personality; special strength, special lack, special achievement; comparison. After the principal's report has been submitted to the superintendent, he and the assistant superintendent go over it with the principal and classify the teacher as A, B, or C.

This method, especially in view of the fact that the rating plan is simple and that each teacher knows on what points she is rated, is preferable to the method of promoting teachers on experience alone. It may be suggested that a super A class be formed for those who have reached the maximum, and that these be given an additional increase, based upon superior work and upon high qualifications, such as college graduation and professional work in addition.

It is worthy of note that few teachers are retained in class C. As teachers were classified at the close of the school term of 1919-20, 254 were in class A, 61 in class B, and 34 in class C. Of the 34 in class C, 18 were not reappointed, 9 were refused reelection, 4 agreed not to make application, and the other 5 were encouraged to go elsewhere. The 16 remaining were considered worthy of another year's trial. The following table gives the distribution of salaries for elementary school principals for 1913, 1918, 1919, and 1920:

*Number of Wilmington elementary school principals falling into various salary groups.*

	1913	1918	1919	1920		1913	1918	1919	1920
\$800-\$899	16				\$1,600-\$1,699			1	2
900-999	6				1,800-1,899				6
1,000-1,099	3	4	2		1,900-1,999			1	4
1,100-1,199	1	7	2		2,000-2,099				1
1,200-1,299		8	4		2,100-2,199				8
1,300-1,399		3	7		2,300-2,399				3
1,400-1,499		3	4	1	2,400-2,499				1
1,500-1,599		1	4						

*Minimum, median, and maximum salaries.*

	1913	1918	1919	1920		1913	1918	1919	1920
Minimum	\$800	\$1,000	\$1,060	\$1,400	Upper quartile	\$975	\$1,275	\$1,445	\$2,150
Lower quartile	825	1,150	1,235	1,835	Maximum	1,175	1,550	1,925	2,430
Median	850	1,200	1,375	1,975					

The median for cities of 100,000 or more population 1919-20 was \$2,130, or \$155 more than for Wilmington in 1920-21, and \$755 more than in 1919-20. As in the case of teachers, elementary school prin-

cipals in Wilmington have until recently been poorly paid, even now the salary is not such as to be attractive to the type of persons needed to supervise the elementary schools.

One of the commendable things recently done by the school board is the granting of 22 days' leave on full pay for illness, and for granting pay for one-fourth time if the illness is for more than 22 days. The teacher must, however, satisfy the school physician that absence was necessary.

#### THE PENSION PLAN.

Though the salaries of teachers in Wilmington have been so low that it has not been possible for a teacher to save for old age, a pension system has been inaugurated that in part at least helps dispel the thought of complete dependence after becoming too old to teach. After 35 years' service, 20 of which must have been in Wilmington, teachers may retire or be retired on an annuity of \$400. There are now 25 annuitants. Without discussing the pension system in Wilmington it may be suggested that the annuity be made more than \$400, so that the school officials will not hesitate to retire a teacher who has taught 35 years and who has ceased to be efficient. As salaries have run in Wilmington these teachers give the greater part of their lives to the schools on salaries of about \$500 a year. Surely something is coming to them now. The city could well afford to increase the annuity to enough to maintain a teacher in comfort in her old age.

## **Chapter III.**

### **A SCHOOL BUILDING PROGRAM FOR WILMINGTON.**

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#### **1. A PRELIMINARY ANALYSIS OF THE PROBLEM.**

The school-building program embodied in this report is uncompromising in its condemnation of all existing public-school buildings in Wilmington. It takes the stand that no patchwork methods will meet the situation. And it endeavors to point out plainly what has to be done in order to give modern education to all the children of Wilmington, and how much it will cost. The survey commission has written the report in this spirit because it believes that the people of Wilmington will be satisfied with nothing less than a clear, uncompromising statement of facts.

The commission has worked out the building program on the assumption that Wilmington wants the best in education for its children. In doing this, it has been necessary to point out conditions that are deplorable. But what the conditions have been up to the present time is not the important point. The very fact that a survey was asked for indicates that Wilmington is not interested in defending existing bad conditions, but is interested in changing them. And since no progress can be made until existing conditions are thoroughly understood, the commission has described these conditions fully, as well as shown a way to improve them.

#### **A SCHOOL BUILDING PROGRAM IS AN ENGINEERING PROBLEM.**

What Wilmington needs primarily, in order to solve her school housing problem is a realization of the fact that a school building program is an engineering problem that demands the same deliberation and scientific planning which is characteristic of much of the business life of the city.

Wilmington, in respect to its commercial life, its banks, its shops, its business and residence buildings, is a typical modern city. It is the home of one of the greatest business organizations in the United States: its hotel is one of the most complete and modern structures of the kind in the country. But within a stone's throw of that hotel are school buildings that belong to the days of horse cars instead of electric railways, hacks and "carry-alls," instead of taxicabs and motors, village taverns instead of city hotels, and the use of gas instead of electricity.

No patchwork or piecemeal methods will bring Wilmington's schools up to date. In fact, one of the reasons why Wilmington is facing the present impasse in school housing is that, in company with many other cities, she has pursued a hand-to-mouth policy in school building. The time has now come to take account of stock and make a scientific analysis of the present situation so that plans may be worked out which will not only meet the pressing needs of the present but also provide for the future growth of the school population over a period of years. Such an analysis involves obtaining answers to the following questions:

How many children of school age are there in the city? How many are attending public school? How many are attending private and parochial schools?

What has been the rate of increase in school population during the past 10 years? In what parts of the city is congestion greatest? In what direction is the tide of population moving.

How many buildings and what kind should be put up, and in what parts of the city, in order to provide for growth as well as for present enrollment?

How much playground space is needed for each building? What kind of activities should be provided in the school buildings in order that the children of Wilmington may grow in health, strength, intelligence, and self-reliance?

What funds will be needed to carry out a comprehensive building program? Is the city of Wilmington financially able to carry out such a program?

#### NO INFORMATION AS TO NUMBER OF CHILDREN IN THE CITY.

At the time of the survey Wilmington did not know how many children there were of school age or of any age in the city. No one knew whether all the children of compulsory school age were in school or what per cent of them were in school. There was no school census, and no school report had been issued since 1910. There was no record of how many children were attending private and parochial schools.

It was possible to get the increase in enrollment from the years 1909-10 to 1919-20, but this was not distributed according to grades, and consequently it was impossible to tell how many children of different ages there were in different parts of the city for the above periods. There were no maps showing where children actually lived in the city. Obviously, no city can hope to solve its school-housing problem if it does not know from month to month and year to year how many children there are in the city.

These facts are emphasized in the beginning, first, because the use of different totals for school enrollment which will be used in the report might otherwise be misleading, and, second, because the first step in carrying out the program outlined in this report must be the development of an adequate system of school statistics.



## SCHOOL POPULATION AND SCHOOL ENROLLMENT.

Statistics which the survey was able to obtain from the United States Census of 1920 showed that there were in that year 40,582 children from under 1 to 20 years of age in Wilmington. Of this number, 37,354 were white children and 3,329 were negro. (See Chapter II.)

There were 15,130 white children between the ages of 6 and 14, inclusive. Of this number, 10,788 were enrolled in white public-elementary schools in the year 1919-20. *In other words, only two-thirds of all the children between the ages of 6 and 14 years in the city were enrolled in public schools.*

Data were also obtained from the private and parochial schools in regard to their enrollment. The report was given, however, as of November 1, 1920, whereas the census figures are for January 1, 1920. According to this report, there were 4,792 children in parochial schools, and 444 children in private schools from 6 to 14 years of age. (See Exhibit XIX.) These figures, together with the 10,788 in public schools, make a total of 16,024, or 894 more children of 6 to 14 years of age enrolled in school than there were in the city. Obviously, there must have been an unusual increase in enrollment in the autumn of 1920, or else there was some error in the returns from these parochial and private schools, or the census figures were not accurate.

There were only 1,402 children in the white high school, although there were 6,006 children from 15 to 18 years of age in the city. There were 240 children from 15 to 18 years of age in the city in parochial schools and 63 in private schools.

Eighty per cent of all negro children, 6 to 18 years of age, were parochial schools and 63 in private schools.

To sum up, of the 23,093 children of 6 to 18 years of age in the city, 19,149 in 1920 were enrolled in public, private, or parochial schools; 3,944, or 17 per cent, were not enrolled in any school.

## SCHOOLS BADLY CONGESTED.

School congestion is so great that in 1920 there was a shortage of over 60 classrooms in elementary schools, that is, there were about 2,400 children without seating accommodations. (See Exhibit XX.)

The heart of the school-building problem in Wilmington is the elementary schools. There are only 1,402 children in the white-high school, and if the ninth grade is taken out of that school, and junior high schools developed, there will be no congestion in the high school for years to come. The chief question, therefore, in the building program, is what the present congestion is in elementary schools,

and the rate of increase in enrollment in these schools during the past 10 years.

In the year 1909-10 there were 8,864 children enrolled in 25 white elementary schools; in 1919-20 there were 10,708. The original seating capacity of these 25 schools, however, on the basis of 40 to a class, is only 8,320. (See Exhibit XX.) That is, there were fewer seats in 1910 than were pupils. In 1920 there were 2,388 pupils without school seats.

It is evident from these figures that there has been an increase in school population in the past 10 years of 20.8 per cent. It is impossible to estimate accurately the probable per cent of increase in school population during the next 10 years, because conditions arising from the war throw out all calculations for the preceding 10 years. For example, the increase from 1910 to 1915 was only 3.3 per cent, whereas the increase from 1915 to 1920 was 16.8 per cent. (See Exhibit XX.) It is estimated that with the return to normal conditions an allowance of an increase of 10 per cent will cover the growth in school population for the next 10 years.

#### WHAT CONGESTION MEANS.

The average citizen probably does not realize, certainly does not visualize, what school congestion means. It meant in the 25 white elementary schools that 71.3 per cent of the youngest children there enrolled were attending school less than 4 hours a day; that 32 per cent of all the children in the first two grades were attending school only 3 hours a day; and that 23.8 per cent of all children in the elementary schools were attending school less than 5 hours. Five hours is supposed to be the length of the regular school day. In other words, nearly one-fourth of the children in the elementary schools were getting less than the legal day of schooling.

But congestion means more than this. It means that the children in the first two grades have their day so divided that some come only in the morning, and some only in the afternoon. This means that some teachers teach from 8.30 to 12 and from 12.30 to 3.30 or 4 p. m., while others teach from 9 to 12 and from 1 to 3.

Furthermore, congestion means that even in the grades above the first two, where there is no part-time evil, the children are placed in overcrowded rooms, rooms with as many as 48 children and with only 40 seats. It means that sometimes they do not have any room at all. There were a number of schools where the children were being taught in the hall. In one case 30 children were packed into a hall so closely that they could not rise to recite.

#### CONGESTION MAKES SATISFACTORY TEACHING ALMOST IMPOSSIBLE.

Teaching even a normal number of children in rooms which are poorly ventilated and poorly lighted is sufficiently difficult, but when

an abnormal number of children are crowded into poorly ventilated and badly lighted rooms, the teaching process becomes almost impossible. Children whose heads are heavy with the bad air of an overcrowded room are in no condition to absorb knowledge. The chief problem of the school always is to get children into a condition in which they want to learn the things that the school has to teach. Studying in old, badly ventilated, poorly lighted, crowded rooms has exactly the opposite effect. If the children are healthy, the one thing they desire is to get away from school to fresh air and freedom; if they are not healthy they should not be in such rooms under any circumstances.

#### OLD INSANITARY BUILDINGS A MENACE TO HEALTH.

School congestion, in such buildings as exist in Wilmington, not only makes satisfactory teaching almost impossible, but it is also a positive menace to the health of the children.

The school buildings in Wilmington are by far the worst that the survey commission has yet seen. On the score of inadequate light, ventilation, and sanitation alone, the use of such school buildings as now constitute the school equipment for the children of the city of Wilmington would be prohibited by law in a number of States.

With the exception of one building, there has been no new school building for 14 years. Nineteen of the 25 buildings were erected 30 or more years ago. Additions were put up to eight of these buildings, but the old buildings are still used. Five buildings were built in the fifties, or over 65 years ago. (See Exhibit XX.) In two cases there was no sewerage system connected with the building, and one building is on such low ground that it is flooded each spring. Last year, so the commission was informed, the water came up to the blackboards in the first story, so that the books were floating about and the children had to be moved. They returned, however, to this school in three weeks. This school has no sewerage system. There are toilets in the yard. (For detailed description of buildings, see section 3 of this chapter.)

#### WASTE IN SCHOOL BUILDINGS.

Not only are these buildings a menace to the health of the school children, but their continued use is an economic waste to the city. They are so old and worn out that it is not worth while to spend a single dollar upon them, yet, during the year 1919-20, \$112,960.31 was spent on operation, upkeep, and outlay for all elementary schools.

Moreover, the maintenance of 30 small buildings is as great an extravagance as would be the maintenance of 30 hotels in Wil-

mington. The larger the school plant within limits the more economical it becomes, and the greater the variety of facilities it can offer to the children. No school building should accommodate less than 1,200 children; and a building of 2,000 can provide far richer educational facilities for its children than one of 1,200. The average number of children in the 30 buildings in Wilmington was 356. A school system which has many small buildings spends in separate sites, equipment, janitorial service, maintenance, and upkeep what should be spent on auditoriums, shops, laboratories, and libraries. In other words, the city has something to learn from the country as to the social and financial advantages of the consolidated school. The very age and multiplicity of the buildings in Wilmington are the school system's greatest extravagance.

#### NO MODERN EDUCATIONAL FACILITIES IN ELEMENTARY SCHOOLS.

But not only is there great congestion in the elementary school buildings, not only does this congestion exist in old, insanitary buildings, which are run at a financial loss, but also there are practically no modern educational facilities in these buildings.

Modern schools now have not only classrooms but auditoriums, gymnasiums, shops, cooking rooms, sewing rooms, drawing rooms, music rooms, science laboratories, libraries, and playgrounds. In all the 25 white elementary schools in Wilmington, however, there are only 2 shops, 2 sewing rooms, and 3 drawing rooms—that is, 7 special facility rooms for 10,708 children, all of which are located in poorly lighted basement rooms. (Exhibit XX.) There are 10 rooms which are called auditoriums, but they are practically nothing but two classrooms thrown into one with a platform at one end. Four buildings have no principal's office or other administrative rooms. There are only two teachers' rest rooms in the 25 schools. There are no pupils' rest rooms or clinics. There are only 2 indoor playrooms, and these are located in basements. There is no adequate outdoor playground space at any of the buildings.

It is sufficiently deplorable that children should have to study in crowded, badly ventilated rooms, but when at the same time they have to stay in those rooms practically all the time that they are in school, with no opportunity for the healthful work and play which are so essential for children, the situation becomes a menace to the future citizenship of the city.

#### CHANGED SOCIAL AND INDUSTRIAL CONDITIONS DEMAND CHANGES IN SCHOOLS.

The average citizen probably does not realize how imperative it is that the school give to children opportunities for healthful work and play as well as study in classrooms. The difficulty is that men and

women who were brought up in the country are not likely to realize the effect that city life has had upon children and children's education in the past decade. They know that something is wrong, but they do not know what it is. They are prone to deplore the fact that "children in these days do not seem to know how to think"; "they don't know how to work"; "they have no initiative, no mechanical ability, nor resourcefulness." The implication is that there is some moral lack in the children. But the truth is that the city environment, whether at home or at school, does not tend to provide for children the practical, everyday problems to be solved which develop these qualities. Hours spent at a school desk do not develop either initiative or mechanical ability; and a love of good workmanship and resourcefulness in solving problems do not develop from reciting lessons merely, but from the opportunity to create things and to solve problems that have meaning. Furthermore, city life, with its cheap amusements and excitement and lack of healthy, normal recreation, does not provide a wholesome environment for children.

There is such a common tendency to identify "schools" with "education" that it is important to emphasize the fact that education has always consisted of work and study and play. Children can not be deprived of any of these three elements in their education if they are to grow in health and strength and develop initiative, intelligence, and the ability to think for themselves. Fifty years ago it made comparatively little difference that schools consisted of little more than classrooms for studying the 3 R's. The children in those days had plenty of opportunities outside of school for the wholesome work and play, which, educationally, was just as important to them as study.

During the past half century, however, has come the growth of the modern city, until now half the population of the country is concentrated in them. And the city, with its overcrowding, its factories, its office buildings, apartment houses, and tenements which go up on all available vacant lots is depriving children of the opportunity for the healthy, wholesome work and play which are essential elements in their education. The city home or apartment can offer few educational opportunities in the way of healthful work which develops the ability to think by attacking problems to be solved. There is no planting and harvesting to be done; few, if any, animals to be taken care of; and it is a rare city home that has a workshop or laboratory. Yet, children, until recently, have received much of their education through the opportunity to handle tools, to take care of animals, and to experiment in making and using things. But the city not only fails to educate children in the right direction; it educates them in the wrong direction, for the street, with its

dangers to the physical and moral life of children, too often becomes their only playground; and street play means education not in health and strength and wholesome living, but precocious education in all the vicious side of a city's life.

#### **SCHOOL MUST GIVE OPPORTUNITY FOR WORK AND PLAY AS WELL AS STUDY.**

For these reasons it has come to be recognized that the city school must not only supply the opportunity for study in good classrooms under wholesome conditions, but it must also return to the children the opportunity for the healthful work and play which the home can no longer supply.

Play, an opportunity to develop mechanical ability and initiative, a practical knowledge of science, a wholesome social life and recreation—these have always been part and parcel of an all-round education; and these are the things which Wilmington, like many other cities, is not giving to her children. The children in the public schools of Wilmington do not have the modern buildings and equipment which children in private schools enjoy; and because the public schools lack shops and laboratories and drawing and music rooms and auditoriums, all children in Wilmington are not getting the variety of opportunity necessary for developing their individual gifts. If Wilmington does not give this variety of opportunity in work and study and play to the children of all its people, then it is failing to tap the reservoirs of power for its coming citizenship. Moreover, it is laying up trouble for itself in the future, for nothing is more serious to any community than to have the great mass of people feel balked in their power of self-expression and attainment.

#### **THE BALANCED LOAD PLAN VERSUS THE PEAK LOAD.**

But how is Wilmington to develop a building program which will not only furnish sufficient classrooms, but also provide the modern educational facilities which are necessary for the children of the city?

There are two chief methods of accomplishing this. One is by the traditional type of school organization, or the peak-load type; and the other is the work-study-plan plan, or balanced-load plan.

The traditional type of school organization attempts to solve the situation by the usual custom of providing a seat in a classroom for every pupil which that pupil has for his exclusive use. All children are expected to be in school seats at the same time, and if provision is made for such special facilities as auditoriums, gymnasiums, laboratories, and workshops, they have to be erected in addition to a classroom for every class, and when the pupils go to the special rooms the classrooms are vacant. This means that the

addition of these special facilities which are essential in a modern school plant add, under the traditional plan, fully 60 per cent to the cubical content of the building.

This is what is commonly known in business as the "peak-load type" of organization because the load is not distributed, but, on the contrary, tends to concentrate at any moment in one part of the building, e. g., the classrooms, and when the children leave the classrooms to go into the special facilities, the load is transferred, leaving the classrooms vacant. Obviously, if Wilmington has to supply not only these special modern educational facilities, but a school seat for every child, the expense will be prohibitive. The question for Wilmington then is how can the school system be rehabilitated to furnish larger educational opportunities and at the same time effect the economies which will bring the building program within the financial resources of the city?

It is evident that the solution of the problem must be found in the increased use of school accommodations and more skillful school planning. Both are possible by skillful organization and administration. Fortunately, there is a method of school organization which has demonstrated its ability to effect these results—that is, the work-study-play plan, or balanced-load type.

This plan developed in an attempt to solve the peculiar school problems created by the modern city, and it is now in operation in the public schools in some 30 or 40 cities in the country.<sup>1</sup> It grew out of a recognition of the fact that, as is the case in Wilmington, the growth of city conditions makes the educational problem far more difficult than formerly; in fact, has created a new school problem. The plan represents an attempt to make it practicable, both administratively and financially, for school administrators to provide not only classroom accommodations, but also such modern educational facilities as gymnasiums, auditoriums, shops, and laboratories where children may be kept wholesomely occupied in study and work and play.

#### THE WORK-STUDY-PLAY OR BALANCED-LOAD PLAN.

Under the work-study-play plan the load is balanced so that half the children are in classrooms while the other half are at work and play. For example, a school is divided into two parts, each having the same number of classes, and each containing all the eight or nine grades. The first part, which we will call the "A School," comes to school in the morning, say, at 8.30, and goes to classrooms for aca-

<sup>1</sup> For example, Detroit, Mich., has 16 schools on the work-study-play plan, and plans to have 30 next year; Pittsburgh, Pa., has 6 schools on the plan; Passaic, N. J., has 2; Newark, N. J., has 9; Troy, N. Y., has 1; Newcastle, Pa., has 4; Winetka, Ill., Kalamazoo, Mich., Sewickley, Pa., and Swarthmore, Pa., are running all their schools on the plan. For information regarding attitude of school superintendents in these cities toward the plan, see Exhibit XXI.

demic work. While this school is in the classrooms it obviously can not use any of the special facilities; therefore the other school—B School—goes to the special activities, one-third to the auditorium, one-third to the playground, and one-third is divided among such activities as the shops, laboratories, drawing and music studios. At the end of one or two periods; that is, when the first group of children has remained, according to the judgment of the school authorities, in school seats as long as is good for them at one time, the A School goes to the playground, auditorium, and other special facilities, while the B School goes to the classrooms.

The following is one type of program that may be used. In this program each school (A and B) is divided into three divisions: Division 1, upper grades; division 2, intermediate grades; division 3, primary grades.

THE "A SCHOOL."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30-9.20	Arithmetic—Divisions 1, 2, 3	.....	.....	.....
9.20-10.10	Language—Divisions 1, 2, 3	.....	.....	.....
10.10-11.00	.....	Division 1.....	Division 3.....	Division 2.
11.00-12.00	.....	Entire "A School" at luncheon.	.....	.....
12.00-1.00	Reading—Divisions 1, 2, 3.....	.....	.....	.....
1.00-1.50	History and geography—Divisions 1, 2, 3	.....	.....	.....
1.50-2.40	.....	Division 3.....	Division 2.....	Division 1.
2.40-3.30	.....	Division 2.....	Division 3.....	Division 1.

THE "B SCHOOL."

8.30-9.20	.....	Division 2.....	Division 3.....	Division 1.
9.20-10.10	.....	Division 3.....	Division 2.....	Division 1.
10.10-11.00	Arithmetic—Divisions 1, 2, 3	.....	.....	.....
11.00-12.00	Language—Divisions 1, 2, 3	.....	.....	.....
12.00-1.00	.....	Entire "B School" at luncheon.	.....	.....
1.00-1.50	.....	Division 1.....	Division 3.....	Division 2.
1.50-2.40	Reading—Divisions 1, 2, 3.....	.....	.....	.....
2.40-3.30	History and geography—Divisions 1, 2, 3	.....	.....	.....

In other words, the work-study-play plan applies to the public school the principle on which all other public service institutions attempt to run—i. e., the principle of multiple use of facilities. The whole tendency in modern public utilities is to eliminate the peak load by using all facilities all the time; and the utility becomes more efficient and accommodates a larger number of people at less cost to the extent to which it balances its load. For example, it is evident that our transportation system is made possible because all people do not have to ride at exactly the same time. Public parks can be maintained by the city because they are not reserved for the exclusive use of any individual or group; the larger the city, and therefore, the larger the number of people supporting them, the more extensive



and beautiful the parks can be made. Hotels can accommodate thousands of people because they are not run on the principle of reserving each room for the exclusive use of a single individual during the entire year.

On the contrary, our public school system up to the present time has been run on the principle of reserving a school seat for the exclusive use of one child during the entire year. All children have to be in school seats from 9 a. m. to 12 and from 1 to 3, and at 3 o'clock all of them are dismissed and turned out to play. The result is that there are never enough seats for all the children to study in, nor enough playgrounds for them to play in. And yet large sums of money are invested in these facilities, which the children can have the use of for only a fraction of the day. For example, thousands of dollars are invested in school auditoriums, and yet the average school auditorium is used regularly only 15 minutes a day. Thousands of dollars are invested in playgrounds, and yet these playgrounds are empty of children all day until 3 o'clock in the afternoon. In fact, if a child is found on the playground before 3 o'clock he is driven off because he is playing truant. Obviously, the playgrounds exist for the use of children, and yet children have the opportunity to use them only a few hours a day, because they must be in school seats from 9 to 12 and 1 to 3. Thousands of dollars are invested in school shops and science laboratories, and yet practically no child in the elementary schools has the opportunity to enter them until the seventh grade, and then for only a few minutes a week. Half the children in the country leave school before they reach the seventh grade.

There would, after all, seem to be no good reason why the principle of other public service institutions, i. e., multiple use of facilities all the time, should not apply to the school, nor any reason why all children should be in classrooms at the same time, nor why the special facilities should be used only a fraction of the day, provided, of course, that the children receive during the day the required amount of academic work. In fact, it is difficult to see how the problem of providing enough classrooms or playgrounds or auditoriums for the mass of children is ever to be met if all children have to be in classrooms at the same time and if all children have to play at once. Moreover, there seems to be no good reason from an educational standpoint why children should all have to do the same thing at the same time.

**PRINCIPLE OF MULTIPLE USE MAKES MODERN EDUCATIONAL FACILITIES FINANCIALLY PRACTICABLE.**

Fortunately, if the principle of multiple use is applied to public-school facilities it is financially possible to provide not only adequate

classroom accommodations, but also auditoriums, gymnasiums, laboratories, and shops for the mass of children. In fact, accommodations may be provided in all facilities, if they are in use constantly by alternating groups, at less cost than regular classrooms may be provided on the basis of a reserved seat for every child. For example, in a 50-class school, under the traditional plan, 50 classrooms are needed in addition to all other special facilities. Under the work-study-play plan only 25 classrooms are needed. Therefore, under this plan the cost of 25 additional classrooms is eliminated. The average cost of a classroom at the present time is \$16,000. Since only half of the usual number of classrooms is required under the work-study-play plan, i. e., 25 classrooms in a 50-class school, the cost of the remainder is released for all the other special facilities.

#### EDUCATIONAL ADVANTAGES OF THE PLAN—AN ENRICHED CURRICULUM

The important point about the balanced-load plan, however, is not its economy, but the fact that it makes possible an enriched education for children. Under this plan the children have not only the same amount of time for reading, writing, arithmetic, geography, and history as formerly, 210 minutes, but also 50 minutes of play every day, 50 minutes a day of auditorium, and 50 minutes a day of shop work every day in the week for a third of the year; science every day for a third of a year; and drawing and music every day for a third of the year. At present, children get in most schools a 10-minute recess period for play, a few minutes for opening exercises in the auditorium, and little or no time for special activities.

#### FLEXIBILITY OF THE PROGRAM MEETS INDIVIDUAL NEEDS OF CHILDREN.

A program based upon the multiple use of facilities also makes it possible to have a flexible program. After all, schools were created for children and not children for the schools, and it should be possible to adapt the program to meet the needs of individual children instead of making children conform to the program, as is too often the case. A study of the different types of work-study-play schools in different parts of the country shows that it is possible to adapt the program to the needs of different types of children and different types or communities.

For example, a child who is backward in a special subject, such as arithmetic, and is being held back in a grade because he can not master that subject, and is growing discouraged because he has to repeat the whole year's work, can double up in arithmetic for a number of weeks by omitting the auditorium period until he has made up the work and is ready to go on with his grade in that subject. In the meantime he has not been held back in other subjects, but has progressed as rapidly in them as he is able to. Or if a

child has a particular talent in some subject, he can under this program double his time in that subject by omitting his auditorium period a number of times a week and yet not lose any time from his regular work.

Again, it is possible to adjust the time of beginning or leaving school to meet the desires of parents. For example, it is possible to arrange to have the school begin at 8.30, 8.45, or 9 a. m., or any other hour desired. Or if the school begins at 8.30 and certain parents object to having their children leave for school so early, it is possible to put these children in the "B School," which begins the day with special activities; in this case the children can omit the play period or auditorium from 8.30 to 9.20 and arrive at school at 9.20. Or, again, many parents prefer to have their children take special music lessons after school. It often happens that home work or staying after school interferes with these lessons. Under the work-study-play plan it is possible to put such children in the "A School" and let them omit the play period or the auditorium in the afternoon from 2.40 to 3.30 p. m. There is, of course, no reason why children should not be given credit for these out-of-school activities if so desired. As for the special facilities in school, each community and each section of the city can have the special facilities which the school authorities and parents desire.

#### **THE SCHOOL TAKES OVER THE STREET TIME OF THE CHILD.**

As has been pointed out, one of the most undesirable elements in the life of city children is the street life in which they have hitherto spent so large a part of their time. The average city school is in session about 180 days in the year. This means that even though all the children attend the entire time, they would still be out of school 185 days in the year. Obviously, because of the conditions of modern city life, it is necessary that the school take over some of the time now spent by the child on the city streets, especially during the school year. At present if 10 hours of the 24 are allowed for sleep, and 6 for meals and home duties, there still remain 8 hours to be accounted for. Even if the children were in school 5 hours every day there would still be 3 hours left, and as is well known these hours are spent on the city streets, and not always to the child's advantage. At least one or two of these should be taken over by the school, and wholesome activity in work and play provided.

The work-study-play plan does this by lengthening the school day an hour or two, as each community may desire, and by offering to the children the wholesome activity in shops and laboratories and on the playgrounds, which is so essential for them. It should be borne in mind, however, that this lengthening of the school day does not necessarily lengthen the number of teaching hours of any teacher.

It is necessary that she be at the school 6 hours, but she need not teach more than 5 hours.

#### **MAKES POSSIBLE WIDER DEVELOPMENT OF JUNIOR HIGH SCHOOLS.**

There is at present in many communities a desire for the development of junior high schools, or what is commonly known as the 6-3-3 plan, i. e., 6 grades of elementary school, 3 grades of junior high school, seventh, eighth, and ninth, and 3 grades of high school. The custom often is to house the junior high schools in separate buildings, but as that means that there also have to be separate buildings for the grade pupils, the cost often becomes so great that a city is not able to afford as many junior high schools as it wishes to maintain. Under the work-study-play plan, however, it is possible, as is shown later in this report, to house all 9 grades in a building so arranged that a definite part of the building is set aside for the junior high school. Under such an arrangement the junior high school may be maintained as a unit, and yet the whole school has the opportunity to use the shops and laboratories and gymnasiums and auditoriums. In that way the cost of maintaining three separate buildings (one junior high school and two grade buildings) is eliminated.

On the other hand, if the authorities feel that it is important to have the junior high school pupils under a separate roof, a separate junior high school and separate grade buildings can be operated at far less expense under the work-study-play plan than under the traditional plan. As is shown in the table of costs, Plan II, the 6-3-3 plan on the work-study-play type of organization, costs \$1,000,000 less than the 6-3-3 plan on the basis of the traditional type of school organization.

#### **WHAT IS PROPOSED UNDER THE BUILDING PROGRAM.**

The school-building program for Wilmington, which is fully described in section 2 of this report, is designed to do three things—relieve existing congestion, provide for growth for a period of 10 years, and consolidate a great number of inefficient and inadequate plants into a small number of modern up-to-date school buildings with adequate playgrounds, thus providing for the maximum educational opportunities for children as well as for community uses of the plant.

#### **COST OF BUILDING PROGRAM.**

Three different plans for a building program are submitted. In each case the cost under the traditional type of school organization and under the work-study-play plan are presented. In all cases the program and estimate of cost have been worked out on the basis of

actual tentative building plans. Photographs of the types of the buildings are also submitted.

Plan I is worked out on the basis of erecting five complete schools with grades from the first through the ninth. This plan is by far the most economical.

Plan II is worked out on the basis of the 6-3-3 plan and provides for four separate junior high schools and eight sixth-grade buildings. This has been done because of the possibility that the school authorities may wish to house the junior high schools in separate buildings.

Plan III is also worked out on the basis of the 6-3- plan, but provides for retaining four old buildings. This has been done in order to show conclusively what it would cost to maintain the old buildings. This plan is the least satisfactory and most expensive of the three.

Section 2 of this chapter gives the specific recommendations in regard to the building program, together with descriptions of the buildings. Section 3 contains detailed tables of cost under the three plans. Section 4 contains a detailed description of the condition of the old buildings. The tables referred to in the text will be found in the appendix.

## 2. THREE BUILDING PLANS PROPOSED.

The Wilmington public school system has an enrollment of approximately 12,000 children in its elementary grades. There are two situations to be met in regard to the building program for these children, (1) adequate housing, (2) provision for the educational requirements of present day demands. There are three proposed plans that will effect a solution to these two problems. A discussion of these plans with reference to the two situations just mentioned, follows:

### WHITE ELEMENTARY SCHOOLS.

#### PLAN NO. 1.—FIVE COMPLETE SCHOOLS.

Scrapping all the existing buildings, and substituting five complete school plants with a housing capacity of 2,000 pupils each, together with one smaller unit with a capacity of 1,200 pupils, and a small building for No. 14 school, across the Christiana, solves the housing problem, and in addition meets the requirements of an enriched curriculum demanded by present-day education.<sup>3</sup>

According to plan 1, the total housing will approximate 12,000 pupils. Although the general plan recommended for each of the large schools is practically the same, its elasticity makes possible any

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<sup>3</sup> In each of the three plans submitted No. 14 school has been treated as a separate unit, since it is across the Christiana and can not be combined with any other school.

desired variation in each plant in order that specific needs and desires in the various communities surrounding the schools may be served. In other words, no two units need be exactly alike. There will be abundant opportunity to make of each school an individual problem.

Of course, changing a school building situation of many small units to one of larger and fewer units, will call for a re-zoning of the city for school purposes and care must be exercised in the selection of sites in order that distances may be equalized as far as possible. Density of population and the direction of the city's growth are two factors which must always be considered in the location of new school plants.

Seven sites, a minimum of 300 by 300 feet each, together with a playground for No. 23,<sup>4</sup> will be required, although larger sites are desirable. Ten or twelve acre school sites are not unusual at the present time, except in our largest cities, and if adequate playground, garden, and lawn are to be secured, the large site is really necessary. If the school is located in close proximity to a city playground or recreational center, however, a site restricted to the requirements of lawn and garden spaces will suffice. The cost of the sites is a matter so variable that even an estimate can not be made in this report at the present time.

THE MOST EFFICIENT TYPE OF ORGANIZATION FOR THE COMPLETE SCHOOLS—THE  
WORK-STUDY-PLAY PROGRAM.

To summarize the factors necessary to an ideal building program for any community is not a problem. The real problem consists in making the right kind of school building financially possible. If we must build sufficient classrooms for all the children to be in classrooms at the same time, and then supply the special facilities enumerated herein, in addition to these, the cost will become prohibitive. But this is not necessary. The special quarters can and

<sup>4</sup> In the section of the city north of the Brandywine there is a tendency toward growth in population in the vicinity of No. 23 school, but that growth is not sufficiently great at present to justify the erection of a new building. On the chance, however, that this section may grow considerably, and that consequently it is not desirable at present to transfer these children to the new complete school in this part of the city, it is recommended that No. 23 school be kept for the present and portables erected to take care of 600 pupils. Portables as a permanent part of the public-school system are not recommended, but there are always parts of the city where the school population is growing, but not to an extent that justifies investing in an entire new school plant. Under such circumstances, portables should be used until it is clear whether there is going to be a sufficiently large enrollment in the new section to justify the erection of a new building. If the school population in the vicinity of No. 23 school does not increase in the next 2 years, then the children should be transferred to the new complete school north of the Brandywine and No. 23 given up. It is possible to secure movable buildings of a modern type—an auditorium, a gymnasium, shop, and nature study room as well as classrooms. For an estimate of the number and kind of portables for No. 23, together with cost, see detailed statement of budget for plan 1.

should count in housing just as much as classrooms, and in planning buildings this is an important matter to consider.

It must be understood of course that special quarters can not be used by the same children all day, nor should classrooms be used by the same group of children all day. A different type of organization and a different plan of operation from the traditional will be required if the building is to give maximum use and if the educational possibilities are to be realized. An organization making use of all space all the time and an operating program which will give to all children a balanced school day of work, study, and wholesome recreation will be necessary to the ultimate success of these complete units. Furthermore, such type of organization and operating plan should guide the development of the building plan. Unless all these factors are developed harmoniously, the maximum housing capacity and the balanced daily program of school activities can not be realized.

#### COST UNDER WORK-STUDY-PLAY PLAN.

Under the work-study-play type of organization in plan 1 for the Wilmington schools, therefore, it is not proposed to have a classroom for every class, but a group of classrooms that will accommodate at least one-half of the pupils at one time; the special quarters divided into gymnasiums, auditoriums, laboratories, and workshops will care for the other half. Owing to the fact that all school facilities count in housing under such a plan, the complete school described in this program offers maximum economies. According to the table of costs each of the larger schools will approximate \$600,000 in costs, the smaller school \$450,000. The total cost of the five schools and the one small plant, together with the building for No. 14, and additions for No. 23, will be \$3,716,000. The equipment would come to \$582,000, making a total cost of \$4,298,000, exclusive of sites.<sup>5</sup>

#### DESCRIPTIONS OF BUILDINGS.

*The classrooms.*—The interior arrangement of the building calls first of all for classrooms sufficient in number to house 50 per cent of the pupils at any one time. This would approximate 1,000 pupils for each of the larger units, 600 for the smaller building and 200

<sup>5</sup> The estimates for the proposed buildings under this program are based upon tentative plans of buildings prepared for the purpose, and are therefore comparable. Where it was possible under prewar conditions to erect modern fireproof school buildings at from 15 to 20 cents per cubic foot, school-building costs have steadily increased to the point where 40, 50, and even 60 cents per cubic foot are not uncommon costs for school buildings in the eastern sections of the country. As this report is drawing to a close, however, there are unmistakable indications that the cost peak has been reached and that costs are declining. How far this decline will go it is impossible to predict and for this reason it has been deemed advisable not to estimate the buildings below 40 cents per cubic foot. The estimates herein given, therefore, have been made upon that basis.

for No. 14 school. With an average enrollment of 40 pupils to a class, 25 classrooms will be required for the schools accommodating 2,000 pupils and 15 for the smaller school accommodating 1,200.

Usually the subjects of reading, writing, arithmetic, English, and spelling are taught in these classrooms and normally at least half of the children's school day is devoted to these subjects. If the school day is six hours in length, about three hours daily will be spent in classrooms. Of course, the length of the day can vary as much as is desirable. The above merely states what the usual arrangement and balance is, where the plan is used successfully.

Geography, history, and civics are sometimes classified as regular classroom subjects, but generally in the complete schools these are considered special or laboratory subjects. Although only half the children's time is spent in the classrooms, the other subjects supplement in various ways the drill subjects in the classrooms; so in reality children may spend more than half the time in the fundamental subjects. Comparing this time with the time in the traditional school, we find that no time is taken from the fundamental subjects by changing the type of organization and plan of operation from a traditional one to one which gives adequate recognition to all vital considerations in education, viz, health, the fundamental operations, manual skill, wholesome recreation, and ethical character.

On the other hand, if school authorities wish to classify as classroom subjects geography and history as well as reading, writing, and arithmetic, it is possible to so classify them in the complete work-study-play school, and give the same amount of time to them—210 minutes—as in the traditional school.

*Gymnasiums.*—Two gymnasiums are provided for the plan, one for girls and one for boys. These include dressing and shower rooms as well as offices for the instructors, physician, and nurse, and space for clinics. Located at the rear of the building, they open directly to the playground. A roof playground could be added, to be used for play classes during the inclement weather as well as for open-air classes. A total of from 6 to 8 classes could be handled during each period by the gymnasium and playgrounds without congestion.

*Shops.*—The workshops for boys include woodwork, staining and finishing, mechanical drawing, and may include printing, metal work, or other shop activities. The activities for girls include home economics and the arts and crafts, although, of course, girls as well as boys may elect to do the work in mechanical drawing, printing, metal work, and other shop activities. Four classes (160 pupils) can be accommodated in these prevocational quarters. This approximates about 80 students in the shops and 80 in the home economics quarters.



*Auditorium.*—An auditorium with a seating capacity of 800 would naturally provide for that number, but it is scarcely possible to get that number of children in one school into a homogeneous group. Seven or eight classes for each period would be a normal group for a 50-class school. Then if the auditorium day is six periods, all the classes will enjoy the advantages of the auditorium activities in the course of the day. Undoubtedly, the auditorium activities have passed the experimental stage. It is obvious that chorus singing, visual instruction, appreciation lessons in music, art, and achievement can not be developed as well in classrooms as in the auditorium, because auditorium equipment is best suited to that type of instruction. Furthermore, the auditorium is the best place for definite instruction on such topics as thrift, citizenship, community, and current topics of all kinds.

Auditoriums will serve community uses, of course, and it is for this purpose as well as those enumerated above that they are usually included in a complete school. Many school people make the mistake of planning auditoriums that are overlarge. Medium-sized auditoriums are better for daily use, and it is only on rare occasions that an auditorium large enough to accommodate the whole school is needed. The smaller assembly room is more practical for daily school uses, but where several schools are being planned at the same time, it is advisable to plan the largest auditorium in the one school that is the most central.

*Laboratories.*—Four laboratories are included, two for the younger children and two for the older. Two of these have greenhouses and can be specialized for nature study and horticulture. Nature study is science taught by observation and by contact with natural and living phenomena. Every normal child is a natural scientist, curious to know all about the natural phenomena about him. Only a small per cent of our children have opportunities for plant culture and animal nurture at their homes. The school must provide these life experiences in most cases. Gardening is usually considered a part of this elementary science, and it is a good plan for the greenhouses to open out on the gardens. These rooms may also be used for handwork rooms for the younger pupils, since much of their handwork will or should be a direct outgrowth of the nature study.

General science is a term applied to more advanced and specific instruction than that just mentioned above, for example, botany, zoology, chemistry, and physics in elementary schools. The aim in all this science instruction is really to develop a usable fund of knowledge about common things.

It has been advisable to thus describe at some length the plan, scope, and advantages of the complete school for the reason that it is the most direct and economical means of providing adequate housing

and maximum educational advantages for the children of Wilmington. In this case there is an adequate site permitting the proper setting of the building, generous garden, and recreational spaces, all correlating in a proper manner with like functions within the building. A study of the plan will make apparent the balance between class and special room, and the rich educational advantages which would be impossible in buildings of the older or traditional type.

*The small units.*—The small school building unit proposed under this plan will vary from the larger buildings only in the number of class and special rooms provided, as it is proposed to house only 1,200 instead of 2,000 pupils therein; these units, however, should be planned so that they may be expanded to accommodate a greater number of pupils should the growth of the city demand it.

*The traditional plan in a complete school and costs.*—If, however, the matter of maximum use of facilities need not be a consideration, and if it is desired to retain the traditional plan of school organization, five large units and one smaller unit, together with a new building for No. 14 school, will still be sufficient for housing and educational requirements in a complete school of nine grades. But the building will need to be enlarged by the addition of a second set of classrooms, or by the addition of another story, since in the large units 25 additional classrooms will have to be provided under the traditional plan, and in the smaller unit 15 additional classrooms. This would make it possible for practically all pupils to be in classrooms at one and the same time. The number and arrangement of special quarters remain the same as in the complete school. This plan, however, will add materially to the cost. Instead of \$600,000, each one of the larger schools will cost \$750,000, a total of \$3,750,000; the smaller one \$530,000, instead of \$450,000. The total cost of the seven buildings will aggregate \$4,589,000, as against \$3,716,000. The equipment, however, under the traditional plan will come to \$624,500, instead of \$582,000 under the work-study-play plan, making a total of \$5,213,500, as against a total of \$4,298,000 under the work-study-play plan. It is evident, then, that there is a saving of \$915,500 under the work-study-play plan. The same number of sites are required, and there is really nothing gained in facilities except that all children may get their academic work at the same time.

#### PLAN NO. 2.

Plan No. 2 calls for four separate junior high schools; eight six-grade buildings; and one new building for school No. 14.

The buildings necessary to house the junior high schools will not vary greatly in their facilities from the complete schools or larger

units just described in plan 1. They will provide accommodation for 700 pupils, who will be housed in 12 classrooms planned for classes of 30 pupils each, and 12 special rooms planned for the same number. In addition to the above, the buildings will provide the same auditorium, health and recreation facilities as are proposed for the complete schools. The type of building recommended for the junior high schools is illustrated in the accompanying plans, and is typical of the buildings being erected in many other communities as the best means of meeting housing conditions and providing better school facilities. The grade buildings will each accommodate 1200 children, or 30 classes, demanding, therefore, under the work-study-play plan, 15 classrooms, or under the traditional plan 30 classrooms, as well as an auditorium, gymnasiums, and 10 special rooms.

#### COST UNDER THE 6-3-3 PLAN.

Under this plan the total number of buildings required would be 13 instead of 7, and there would have to be 13 sites instead of 7. The cost under the work-study-play plan in the 6-3-3 organization would be, including equipment, \$6,574,000, and under the traditional plan, including equipment, \$7,458,500, exclusive of the 13 sites, as against a total under plan 1 of \$4,298,000 (work-study-play) and \$5,213,500 (traditional).

#### PLAN NO. 3.

Plan 3 follows the organization proposed in plan 2, namely, the 6-3-3 plan, except that it is proposed to make use of certain old school buildings. Inasmuch, however, as these buildings are inadequate to house all the pupils in them, additions will have to be erected. Old buildings of the traditional type are rarely adapted for alteration and additions fitting them to modern educational needs without excessive cost, and although under this plan it is proposed to make use of four of them the total estimated cost remains practically the same as in plan 2, which scraps all existing buildings. That is, the cost under plan 3, including equipment, is \$6,422,000 (work-study-play plan) and \$7,409,000 (traditional plan). But plan 3 demands 15 additional sites instead of 13 under plan 2. Consequently, plan 3, which retains 4 old buildings, is actually the most expensive of any of the plans proposed.

It is, of course, impossible to give any estimate of the cost of sites, but assuming, for the sake of comparison, that the average cost of sites was \$25,000, the cost for the seven sites under plan 1 would be \$175,000; under plan 2 with 13 sites, \$325,000, and under plan 3 with 15 sites, \$375,000.

## NEGRO SCHOOLS.

There are five Negro schools in the city, Nos. 18, 21, 22, 29, and 16. The latter is a combination elementary and high school. The total enrollment in the Negro schools is 1,525, and there has been an increase in 10 years of 27.5 per cent.

No. 22 is a small special school doing very excellent work in a poor section of the city. It is as much a social settlement as a school, and does not need a new building, as it is already housed in an excellent one. It needs only equipment for a shop and a cooking room and space for playground.

No. 18 is in the section across the Christiana and consequently has to be treated as a separate unit. A new building should be provided for this school.

Nos. 16, 21 and 29 should be housed in one building to be situated about midway between 21 and 16. All three schools taken together would make an enrollment of 1,368. No. 16 is now in an old building, which is nothing short of a fire trap. No. 29 is a fairly good building, but it is surrounded on three sides by leather factories, and the odor from these factories is such that children should not be permitted to go to school in that neighborhood. No. 21 is a fairly good building and it is not crowded at all. It would, however, be more economical to give up this building and house all three schools in one building. As the bulk of the Negro population is in the center of the town, the building should be erected in that vicinity.

If there is an objection to giving up No. 21, then it could be left as it is, which would reduce the enrollment in the new building for No. 16 and No. 29 to 1,133 pupils. It should be remembered, however, that the city will then have to sustain the overhead cost of two buildings instead of one. The cost of instruction, operation, and maintenance for No. 21 during the past year was \$8,260.25, or a per capita cost, on a basis of enrollment, of \$63.14. In fact, the per capita cost of operating these old buildings for the Negro schools is appallingly extravagant, and yet necessarily so if these old, small buildings are to be retained. In 1919-20 for No. 16 it was \$61.45; for No. 18, \$69.78; for No. 21, \$63.14; No. 22, \$109.64; No. 29, \$47.97. The cost of instruction, building operation, maintenance, and overhead for the three buildings which it is now proposed to combine—Nos. 16, 21, and 29—was during the past year \$38,534.39. This money would far better be spent in maintaining a new building of a modern type than in keeping up old buildings that are not worth a dollar of investment.

*Recommendations for Negro schools.*—It is proposed for the Negro schools that one complete school with grades from the first to the twelfth be erected for Nos. 16, 21, and 29, and one new building for No. 18.

The complete school under the work-study-play plan would have 20 classrooms, 10 special rooms, 1 auditorium, and 2 gymnasiums, and would cost with equipment \$545,000. The new building for No. 18 would have 2 classrooms, 4 special rooms, 1 auditorium, and 1 gymnasium, and would cost with equipment \$110,000. The equipment for No. 22, for the shop and cooking room, would cost \$5,000. The total cost, then, for the Negro schools would be \$660,000.

Under the traditional plan the complete school would have to have 36 classrooms, 10 special rooms, 1 auditorium, and 2 gymnasiums, and would cost \$631,500. The new building for No. 18 would have 4 classrooms, 4 special rooms, 1 auditorium, and 1 gymnasium, and would cost \$130,800. The equipment for the two shops in No. 22 would be \$5,000. This makes a total of \$767,300, or about \$100,000 more than under the work-study-play plan.

Under either plan, the children enrolled in school would have, in place of old buildings which are unfit for use, two new modern buildings with shops, laboratories, auditoriums, and gymnasiums as well as classrooms.

*Total cost for both white and Negro schools, exclusive of sites, under the three plans.*

Plans.	White schools.	Negro schools.	Total.	Sites required.
<b>Plan I:</b>				
Under work-study-play plan .....	\$4,298,000	\$660,000	\$4,958,000	7
Traditional plan .....	5,215,500	767,300	5,982,800	7
<b>Plan II:</b>				
Under work-study-play plan .....	6,574,000	660,000	7,234,000	13
Traditional plan .....	7,458,500	767,300	8,225,800	13
<b>Plan III:</b>				
Under work-study-play plan .....	6,422,000	660,000	7,082,000	16
Traditional plan .....	7,409,000	767,300	8,176,300	16

#### SUMMARY.

To sum up, plan 1, which provides for five complete schools under the work-study-play plan, is the most economical. It would cost \$4,958,000, and require seven sites. Under the traditional type of school organization, plan 1 would cost \$1,000,000 more, or \$5,982,800.

Plan 2, which provides for four separate junior high-schools and eight sixth-grade buildings, together with one new school at No. 14, would cost under the work-study-play plan \$7,234,000, or \$2,276,000 more than plan 1. Under the traditional type of organization it would cost \$8,225,800, or nearly twice as much as the first estimate. Moreover, 13 sites instead of 7 would be required under plan 2, and 13 buildings instead of 7.

Plan 3, although it retains four old buildings, is practically as expensive as plan 2, and far more expensive than plan 1. This plan requires 16 sites.

If Wilmington should choose to retain four old buildings and run a school on the traditional type of school organization, it will cost the city practically twice as much (\$8,176,300) as it would to erect five complete schools with two small units under the work-study-play plan.

The work-study-play plan, though not the traditional school plan, has had sufficient trial to show that it is sound, not only from an economical but an educational standpoint. Therefore it is recommended that whether plans 1 or 2 be adopted, the schools should be organized on the work-study-play plan, not merely because it is the most economical type, but because it makes possible a greatly enriched education for the children of Wilmington.

### 3. DETAILED STATEMENT OF BUILDING PROGRAM SHOWING CAPACITY AND COST UNDER THREE ALTERNATE PLANS.

#### WHITE SCHOOLS.

PLAN I.—*On the basis of five complete schools, discarding all old buildings.*

##### a. WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.<sup>1</sup>

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
Five new buildings at \$600,000..... 2,000 pupils per building. 50 classes. 25 classrooms. 14 special rooms. 1 auditorium. 2 gymnasiums.	10,000	\$500,000	\$3,000,000	\$3,500,000
One new building at \$450,000..... 1,200 pupils per building. 30 classes. 15 classrooms. 10 special rooms. 1 auditorium. 2 gymnasiums.	1,200	60,000	450,000	510,000
One new building for No. 14, at \$250,000..... 400 pupils per building. 10 classes. 5 classrooms. 3 special rooms. 1 auditorium. 2 gymnasiums.	400	20,000	250,000	270,000
Portables for No. 23..... 600 pupils per building. 16 classes. 1 auditorium..... \$3,500 1 gymnasium..... 3,500 1 cooking room..... 3,000 1 nature study room..... 1,000 1 drawing room..... 1,000 Equipment for shop..... 2,000 Repairs..... 2,000	600	2,000	16,000	18,000
Total.....	16,000			
	12,200	\$82,000	\$3,716,000	\$4,298,000

##### b. TRADITIONAL PLAN—CAPACITY AND COSTS.<sup>1</sup>

Five new buildings, at \$750,000..... 2,000 pupils per building 50 classes. 50 classrooms. 14 special rooms. 1 auditorium. 2 gymnasiums.	10,000	\$538,000	\$3,750,000	\$4,288,000
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<sup>1</sup>Sites required, 7 for new buildings, 300 by 300 feet; 1 playground for No. 23.

## PLAN I—On the basis of five complete schools, etc.—Continued.

## A. FRACTIONAL PLAN—CAPACITY AND COSTS—Continued.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total Cost.
One new building, at \$578,000..... 1,200 pupils. 30 classes. 30 classrooms. 10 special rooms. 1 auditorium. 2 gymnasiums.	1,200	\$65,000	\$530,000	\$595,000
One new building for No. 14, at \$285,000..... 400 pupils. 10 classes. 10 classrooms. 3 special rooms. 1 auditorium. 2 gymnasiums.	400	21,500	285,000	306,000
Portables for No. 23..... 600 pupils. 16 classes. 5 classrooms..... \$8,000 1 auditorium..... 3,500 1 gymnasium..... 3,500 1 cooking room..... 3,000 1 nature-study room..... 1,000 1 drawing room..... 1,000 Equipment for shop..... 2,000 Repairs..... 2,000	600	2,000	24,000	26,000
<b>Total</b> .....	<b>24,000</b>	<b>12,200</b>	<b>636,500</b>	<b>4,589,000</b>
				<b>5,215,000</b>

*Basis for estimate of enrollment.*—The number of pupils enrolled in the Wilmington white schools as of June 30, 1920, exclusive of the high school, was as follows: Enrollment in white schools, June 30, 1920, grades 1 to 8, 10,353; grade 9, 621; total, 10,974.

But any adequate building program must provide for growth for at least 10 years. It is estimated, however, that with the return to normal conditions an allowance of an increase of 10 per cent will cover the growth in school population for the next 10 years. A 10 per cent increase in the nine grades would be 1,097. Therefore the total enrollment to be provided for would be 12,071.

*Net enrollment in elementary schools, white and colored, as of June 30, 1920.*

Schools.	Grades.								Total.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	
White elementary:									
1.....						177	260	125	562
2.....	91	85	80	98	92	46			492
3.....	98	92	79	93	79				441
4.....						267	206	111	584
5.....	59	41	37	41	37				215
6.....	80	58	49	46	44				277
7 and 8.....	139	91	95	98	98	76			597
9.....	98	80	121	89	121	88			597
10.....	81	39	61	48	44				273
11.....	124	99	97	86	83	34			523
12.....	81	68	75	93	48				365
13 and 27.....	86	89	71	75	88	77			486
14.....	68	65	73	47	50	36			339
15.....	77	69	83	76	93				398
17 and 26.....	109	84	77	72	64	32			438

*Net enrollment in elementary schools, etc.—Continued.*

Schools.	Grades.								Total.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	
<b>White elementary:</b>									
19.....	72	51	41	85	88	36			373
20.....	80	59	62	64	86				351
23.....	57	68	19	75	60	66			345
24.....						150	314	293	757
25.....	161	130	123	107	118	22			661
28.....						195	347	222	764
30.....	91	85	85	91	81	82			515
Total.....	1,652	1,353	1,328	1,384	1,374	1,384	1,127	751	10,353
Ninth grade (high school).....									621
									10,974
<b>Colored elementary:</b>									
16.....	55	35	41	15	20	103	103	52	424
18.....	49	33	28	22					132
21.....	41	24	34	31	35	27			192
22.....	41	35	20	5	16				117
29.....	108	127	100	94	99				528
Total.....	294	254	223	167	170	130	103	52	1,393
Grand total.....	1,946	1,607	1,551	1,551	1,544	1,514	1,230	803	12,367

**Zoning of school population.**—As is pointed out in the summary of plan 1, five complete schools of 2,000 each are to be erected. These schools are to have nine grades. They will take care of 10,000 children. The objection might be made that the children are not distributed in the city in groups of 2,000 each in five different parts of the city, but as a matter of fact that is exactly the way they are distributed, if the actual location of the children's homes is considered, and not the enrollment in the schools. At the present time, Wilmington has no district lines, but the school population naturally divides itself into five zones. The boundaries are flexible, of course, but in general these zones might be called the North End, including that part of the city north of the Brandywine; the East of Market Street Section, including the section of the city south of Brandywine and east of Market Street; the West of Market Street Section, including that section of the city west of Market Street, south of Fourth Street, and east of Dupont Street; the Central Section, west of Market Street, north of Fourth, south of the Brandywine, and east of Dupont Street; and the Western Section, consisting of the section of the city west of Dupont Street. A study of the actual location of the residences of the children will show that there are about 2,000 children each in these sections, with the exception of the North End and the Western Section; consequently, smaller units are suggested for these sections in addition to a complete school for each.

The new building for 1,200 should be located in the Western Section, a little north of No. 11 school. The upper-grade children should go to the complete school in that section. In the North End there is a tendency toward growth in population in the vicinity of



No. 23 school, but that growth is not sufficiently great at present to justify the erection of a new building; therefore until it becomes clear to what extent this section will grow it is recommended that portables be put up to take care of 600 pupils. Inasmuch as there are already eight classrooms in the building, it would be necessary under the work-study-plan plan to put up only one auditorium, one gymnasium, and three special rooms. There is a room in the basement that could be fitted up as a shop. Under the traditional plan of school organization, however, it would be necessary to provide eight more classrooms, since the total number of classes is 16. As was pointed out earlier in the report, No. 14 school has to be treated as a separate unit, since it is across the Christiana River. Such a building would cost, for only 10 classes, \$250,000, whereas the complete school for 50 classes (2,000 pupils) would only cost \$500,000. This is an excellent example of the extravagance of the small school building.

**Equipment.**—Full equipment for the complete school buildings can be installed at a cost of \$50 per pupil, and upon this basis the equipment for the large units can be estimated at \$100,000 each, and for the small units (1,200) at \$60,000.

**PLAN II.—On the basis of the 6-3-3 plan—Discarding all old buildings.<sup>1</sup>**

**a. WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.<sup>1</sup>**

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
Four junior high schools, at \$500,000.....	2,800	\$224,000	\$2,000,000	\$2,224,000
700 pupils per building.				
Eight 6-grade new buildings, at \$450,000.....	9,600	480,000	3,600,000	4,080,000
1,200 pupils per building.				
30 classes.				
15 classrooms.				
10 special rooms.				
1 auditorium.				
2 gymnasiums.				
One new building for No. 14, at \$250,000.....	400	20,000	250,000	270,000
400 pupils.				
10 classes.				
Total.....	12,800	724,000	5,850,000	6,574,000

**NOTE.**—It will be noted that the total enrollment provided for under this estimate is 12,800 which is 800 more than is necessary to provide for growth for 10 years, but as this means only 100 pupils per building the estimated cost is not materially affected. The reason is that under the 6-3-3 plan there has to be a 6-grade school in each section of the city, even though the enrollment in each section is not up to 1,200.

**b. TRADITIONAL PLAN—CAPACITY AND COSTS.<sup>1</sup>**

Four junior high schools, at \$500,000.....	2,800	\$224,000	\$2,000,000	\$2,224,000
700 pupils per building.				
Eight 6-grade new buildings, at \$530,000.....	9,600	688,000	4,240,000	4,928,000
1,200 pupils per building.				
30 classes.				
30 classrooms.				
10 special rooms.				
1 auditorium.				
2 gymnasiums.				
One new grade building for No. 14, at \$285,000.....	400	21,500	285,000	306,500
400 pupils.				
10 classes.				
Total.....	12,800	933,500	6,525,000	7,458,500

<sup>1</sup> Sites required, 13 for new buildings, 300 by 300 feet.

*Distribution of enrollment under Plan II.*—There are 2,499 children in the seventh, eighth, and ninth grades in the Wilmington white elementary schools, and 8,475 children in grades 1 to 6, inclusive. Providing for a 10 per cent increase brings the total to about 12,000. Under Plan II there would be four junior high schools of 700 pupils each, and eight 6-grade buildings of 1,200 pupils each. This gives, with No. 14 school, an enrollment of 12,900, or a provision of about 900 more pupils than it is necessary to provide for. This is done, however, because it would be uneconomical to have a building for less than 1,200 pupils, and it adds only 100 pupils per building.

*Equipment.*—In the junior high schools, where the special features of the complete school are retained and yet the capacity of the school reduced to 700 pupils, it will be necessary to estimate the full equipment at \$80 per pupil. That makes the complete equipment for the junior high school \$56,000. The equipment for the grade units would be \$60,000 each, under the work-study-play plan. Under the traditional plan the cost of the grade units would be \$86,000.

PLAN III.—On the basis of the 6-3-3 plan—Using four old buildings.

a. WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	No. of pupils accommodated.	Cost of new equipment.	Cost of new buildings and additions.	Total cost.
Four junior high schools, at \$500,000..... 700 pupils per building.	2,800	\$224,000	\$2,000,000	\$2,224,000
NEW BUILDINGS.				
Six 6-grade buildings, at \$450,000..... 1,200 pupils per building. 30 classes.	7,200	360,000	2,700,000	3,060,000
One new building for No. 14, at \$250,000..... 400 pupils. 10 classes.	400	20,000	250,000	270,000
ADDITIONS TO OLD BUILDINGS.				
School No. 30..... 1 playground.	640			
School No. 19..... Addition with— 1 auditorium. 1 gymnasium. 7 special rooms.	620	31,000	250,000	281,000
School No. 13 (and 27)..... Addition with— 1 auditorium. 1 gymnasium. 7 special rooms.	637	31,000	250,000	281,000
School No. 24..... Addition with— 1 gymnasium. 2 special rooms.	633	31,000	75,000	106,000
New heating and ventilating systems for schools No. 30, 19, 13, and 24.....			200,000	200,000
Total.....	12,930	697,000	5,725,000	6,422,000

## PLAN III.—On the basis of the 6-3-3 plan—Using four old buildings—Continued.

## b. TRADITIONAL PLAN—CAPACITY AND COSTS.

Buildings.	No. of pupils accommodated.	Cost of new equipment.	Cost of new buildings and additions.	Total cost.
<b>NEW BUILDINGS.</b>				
Four junior high schools, at \$500,000..... 700 pupils per building.	2,800	\$224,000	\$2,000,000	\$2,224,000
Six 6-grade buildings, at \$530,000..... 1,200 pupils per building. 30 classes.	7,200	516,000	3,180,000	3,696,000
One new building for No. 14, at \$285,000..... 400 pupils. 10 classes.	400	21,500	285,000	306,500
<b>ADDITIONS TO OLD BUILDINGS.</b>				
School No. 30..... Addition with— 4 classrooms. 4 special rooms.	640	12,000	90,000	102,000
School No. 19..... Addition with— 1 auditorium. 8 classrooms. 7 special rooms.	620	33,500	305,000	338,500
School No. 13..... Addition with— 1 auditorium. 1 gymnasium. 8 classrooms. 7 special rooms.	637	33,500	305,000	338,500
School No. 24..... Addition with— 1 gymnasium. 4 classrooms. 6 special rooms.	633	33,500	120,000	153,500
New heating and ventilating systems for schools No. 30, 19, 13, and 24.....			250,000	250,000
<b>Total.....</b>	<b>12,930</b>	<b>874,000</b>	<b>6,535,000</b>	<b>7,409,000</b>

*Notes on Schools Nos. 30, 19, 13, and 24, showing basis of the estimate of the number of classrooms and special activity rooms needed in these buildings in Building Program III.*

**No. 30—North End.**—Present enrollment, 515; enrollment to be provided for, 600, or 16 classes.

This school has 12 classrooms, 1 room in the basement, 2 playrooms in the basement, 1 auditorium on the top floor.

If reorganized on the work-study-play plan, 8 of the 12 rooms should be used as classrooms, leaving 4 for special activities, and 1 in the basement, or 5 special rooms. If organized on the traditional plan, it would be necessary to have 16 classrooms. Therefore, an addition would have to be erected containing 4 classrooms and 6 special rooms.

**No. 19—West of Market Street.**—Present enrollment, 373; enrollment to be provided for, 620, or 16 classes.

This school has 8 classrooms, no auditorium, no gymnasium, no room in the basement.

If reorganized on the work-study-play plan, all the 8 rooms would have to be used as classrooms and an addition erected containing 1 auditorium, 1 gymnasium, and 7 special activity rooms.

If organized on the traditional plan, all the 8 rooms would have to be used as classrooms and an addition erected containing 1 auditorium, 1 gymnasium, 8 classrooms, and 7 special activity rooms.

*No. 13 and 27—Western Section.*—Present enrollment, 438; enrollment to be provided for, 637, or 16 classes.

No. 13 school has 8 classrooms, no auditorium, no gymnasium, and no adequate room in the basement.

If reorganized on the work-study-play plan, all the 8 rooms would have to be used as classrooms, and an addition erected containing 1 auditorium, 1 gymnasium, and 7 special activity rooms.

If organized on the traditional plan, all the 8 rooms would have to be used as classrooms and an addition erected containing 1 auditorium, 1 gymnasium, 8 classrooms and 7 special activity rooms.

*No. 24—Central Section.*—Present enrollment. No. 24 south of the Brandywine, 141; No. 2, 492; total, 633.

Enrollment to be provided for, 633.

This school has 12 classrooms, an auditorium and 1 adequate room in the basement.

If reorganized on the work-study-play plan, 8 of the 12 classrooms should be used as classrooms leaving 4 regular rooms and 1 room in the basement for special activities. An addition would have to be erected containing 1 gymnasium and 2 special rooms.

If organized on the traditional plan, all 12 rooms would have to be used as classrooms. An addition would have to be erected, containing 1 gymnasium, 4 classrooms and 6 special activity rooms.

#### *Number of sites required under Plan III.*

[Same for the work-study-play plan or traditional plan.]

	No.	Size.
Sites required for junior high school.....	4	300 by 300
Sites required for six 6-grade buildings .....	6	300 by 300
Site required for new No. 14 building.....	1	300 by 300
No. 30—1 playground and 1 site for addition.....	1	100 by 300
No. 19—1 site for addition.....	1	200 by 300
No. 13—1 site for addition.....	1	200 by 225
No. 24—1 site for addition.....	1	( <sup>1</sup> )
Total sites.....	15	

#### NEGRO SCHOOLS.

PLAN III.—*On the basis of one complete school and one new building for No. 18.*

##### a. WORK-STUDY-PLAY PLAN—CAPACITY AND COST.<sup>1</sup>

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of new buildings.	Total cost.
One complete school for Nos. 16, 21, and 29, at \$485,000..... 1,440 pupils. 20 classrooms. 10 special rooms. 1 auditorium. 2 gymnasiums.	1,440	\$60,000	\$485,000	\$545,000

<sup>1</sup> Space is available on present lot for either an addition or a playground but not for both.

<sup>1</sup> Sites required, 2 for new buildings, 300 by 300 feet; 1 for playground, 100 by 300 feet.

PLAN III.—*On the basis of one complete school, etc.*—Continued.

## a. WORK-STUDY-PLAY PLAN—CAPACITY AND COST—Continued.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of new buildings.	Total cost.
One new building for No. 18, at \$100,000 .....	160	\$10,000	\$100,000	\$110,000
100 pupils.				
4 classes.				
2 classrooms.				
4 special rooms.				
1 auditorium.				
1 gymnasium.				
No. 22, additional equipment.....	129	5,000	.....	5,000
Equipment for shop in basement..... \$2,000				
Equipment for cooking room..... 3,000				
5,000				
Total.....	1,729	75,000	585,000	660,000

b. TRADITIONAL PLAN—CAPACITY AND COST.<sup>1</sup>

One complete school for Nos. 16, 21, and 29, at \$565,000 .....	1,440	\$66,500	\$565,000	\$631,500
1,440 pupils.				
36 classrooms.				
10 special rooms.				
1 auditorium.				
2 gymnasiums.				
One new building for No. 18, at \$120,000.....	160	10,800	120,000	130,800
160 pupils.				
4 classes.				
4 classrooms.				
4 special rooms.				
1 auditorium.				
1 gymnasium.				
No. 22, additional equipment.....		5,000	.....	5,000
Equipment for shop..... \$2,000				
Equipment for cooking..... 3,000				
5,000				
Total.....	1,600	82,300	685,000	767,300

<sup>1</sup> Sites required, 2 for new buildings, 300 by 300 feet; 1 for playground, 100 by 300 feet.

## BUILDING PROGRAM FOR NEGRO SCHOOLS.

*One complete school for Nos. 16, 21, and 29.*

Enrollment as of September 30, 1920:

No. 16, grades, kindergarten and 1 to 8..... 448

No. 21..... 201

No. 29..... 492

Total elementary..... 1,141, or 30 classes.

10 per cent increase..... 114

Total pupils to be provided for..... 1,255, or 32 classes.

High school, No. 16..... 103

10 per cent increase..... 10

113

Grand total..... 1,368, or 35 classes.

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**Capacity needed under work-study-play plan :**

- 16 classrooms for elementary school
- 3 rooms for high school—history, English, language
- 1 kindergarten

- 
- 20 classrooms
  - 2 laboratories
  - 2 shops for boys
  - 2 shops for girls
  - 2 drawing rooms
  - 1 music room
  - 1 nature-study room

- 
- 10 special rooms
  - 1 auditorium
  - 2 gymnasiums

**Summary :**

- 20 classrooms
- 10 special rooms
- 1 auditorium
- 2 gymnasiums

**Capacity needed under traditional plan :**

- 30 classrooms (32 elementary rooms, 3 high schools, 1 kindergarten)
- 10 special rooms
- 1 auditorium
- 2 gymnasiums

**4. THE CONDITION OF THE PRESENT SCHOOL PLANT.**

It will in nowise be a shock to the school board of Wilmington, nor to the citizens of the city, when we say at once that the building of schoolhouses has not kept up with the needs of the children of the city, and that they are now for the most part being housed and taught in antiquated and unsatisfactory buildings. No one who knows what a modern schoolhouse is could possibly escape this conclusion. Were we to try to judge of what is going on in Wilmington, and had to make our deductions alone from an examination of the school buildings, we would expect to see the street cars drawn by mules, the streets and business houses lighted by gas, and the homes by kerosene lamps. We could not hope to see an automobile nor pass a modern department store, and yet when we emerge from the school buildings we find a thoroughly modern business city, with a palatial hotel, an imposing city hall, modern street car service, and the whole city ablaze with electric lights. The majority of the elementary-school children and their teachers are living and working in conditions consonant with those of the city of a half century ago. We have not suggested this comparison out of any desire to find fault, but to state in a concrete way that the spirit of progress else-

where seen in the city has in some unexpected way forgotten to take the needs of the school children, as far as proper housing is concerned, into account.

#### THE LACK OF PLAYGROUNDS.

In the first place there are no playgrounds of any consequence connected with the school buildings. Fifty years ago there were commons or vacant lots about most American cities, where children were at times allowed to play, but in general the spirit of play was looked on as something to put up with rather than to be cultivated. But we have just as surely found a better and safer way to treat our children in this respect as we have found a better and safer method than oil lamps to illuminate our houses.

The young of all animals instinctively play, for this is nature's way of preparing them for the actual work of life. Children are no exception to this rule. Indeed this instinct in them is more compelling and demands a fuller expression than in any lower animal. We submit therefore that one of the big problems the city of Wilmington must face, and finally solve if it is to do its duty to the children and the State, is to set about at once to secure ample grounds for all the new school buildings it needs to erect. We wish it were possible that the older buildings, which must still be used for some time, could be made to look out on playgrounds instead of dirty roofs or unkempt back yards and noisy streets. There is not likely to be real relief from attempting to comply with a recommendation that land adjoining the old buildings be condemned and turned into playgrounds, for the cost would be prohibitive in most cases, and the congestion of business about them would in time make these locations wholly unsatisfactory for school purposes.

But the board of education must now see that the children of Wilmington have been cheated for many years for lack of playgrounds, and that it is the duty of all to make it impossible for similar conditions to be reproduced at any new buildings to be erected. It would be utter folly to build another large building in the city on less than a full-sized block. Does the reader think this is an extravagance? If so, please withhold a judgment until the following questions are answered:

#### REASONS FOR AMPLE PLAY SPACE.

Must the city child give up any sort of real play with his fellows and never learn the self-control and cooperation it brings, or shall we let him try it in the streets amidst the increasing hazards there found? Shall we preach much about physical education and deny him the most economical and most natural form of it? Can a teacher within a building successfully teach children to get on to-

gether without a boss if she can not let them actually play together without a boss?

There can be no doubt that the truest and most real training in democratic behavior may be had on the school playground. A theoretical, pedagogical teaching of democracy gets nowhere. If all our children had opportunity to play together in the wholesome atmosphere of our public schools, it would do more to preserve and purify democracy than all our noisy politicians. It is sound educational doctrine which calls for ample opportunity for our children to play together, and it is sane, economical educational practice to give them playgrounds. Moreover, juvenile delinquency is intimately associated with the lack of playgrounds, and this has been demonstrated over and over. Good school buildings are very important, but ample playgrounds must be considered the first essential for the children.

One of the newest buildings in the city is so situated that it is almost impossible to light it properly, to say nothing of the noise, dust, and danger due to its location. Reference is made to No. 30. It was a serious mistake to locate it on that small tract of ground, badly oriented, wholly inadequate in size and so unsuitable as to demand a wretchedly planned building. And just here may we say as forcefully as possible that if a small, badly placed lot of improper shape and faulty orientation is selected, it is impossible to construct on it an economical and satisfactory school building. We believe that the blindest spot in the vision of the school authorities of Wilmington has been directed toward the selection of school sites. No more serious blunder in this regard could be cited than that of placing the new high-school building where it is. Not only is there no playground about it, but one-half of it was necessarily doomed to insufficient light and one-half of the old building criminally darkened. Furthermore, since the lot was restricted the necessity for more room operated practically to compel the architect to run it up four stories high despite fire hazards, unending inconvenience and loss of time in school work, and really the criminal neglect of the proper care of adolescent girls. But this same lack of selecting proper building sites is shown in dozens of other cases.

We wish then, with all sincerity and with the utmost solicitude for rendering service, to suggest the following guiding principles, and earnestly entreat the board of education to apply them when the duty of selecting a site for a new building devolves upon them.

#### GUIDING PRINCIPLES IN SELECTING SITES.

1. The site must be large enough and of the proper shape to make it possible to plan for an economical and hygienic building.



2. The site must be removed from noisy streets, factories, and railways.

3. The ground should be dry and uncontaminated with city refuse. It should be fairly level and in a safe environment.

4. A lot that will permit the placing of a building with the long sides facing directly east and west, other things equal, is a much more valuable lot for a schoolhouse than one whose long axis makes it necessary to face the long sides of the building to the north and south, or an intermediate direction. We wish to point out in this connection that the board of education of Wilmington is peculiarly handicapped in selecting proper sites for school buildings, because of the fact that the city streets for the most part run at an angle to the cardinal points of the compass. That is to say, if the streets ran due east and west, and due north and south, the proper orientation of school buildings would be far easier.

But those who object to this statement will argue that because of this unusual direction of the streets of Wilmington, a greater number of rooms will get the sunshine than if the streets ran with the cardinal points of the compass. May we reply that this is true, and that for homes it is probably as good an orientation as we could demand. But school conditions make different demands from homes and other types of buildings. Since the streets in general in Wilmington run from northeast to southwest, and from southeast to the northwest, all classrooms with windows facing toward the southeast are troubled almost all day on clear days with direct sunshine on the desks of the pupils seated next to the windows; and since the desks can not be moved the pupils must be protected by closing the windows with shades. When this is done, and it is a necessity under these conditions, those pupils further removed from the windows are badly handicapped for lack of sufficient illumination on their books. But this does not state the whole difficulty.

When shades are pulled down proper ventilation of the room through the windows is an utter impossibility and the deadening effect of living and working in impure air must be suffered all day long. On the other hand, if a classroom has its windows facing directly toward the east, on clear days the whole room in its full extent may get a purifying sunning before school begins, and shades are necessary only for an hour or so after school opens. Then for the rest of the day the shades can all be entirely rolled up and the whole schoolroom flooded with nonglaring light, and proper ventilation can be secured by adjusting the windows to suit weather conditions. When the windows in a classroom face the southwest, then the trouble with direct sunshine on clear days must be struggled with all afternoon, and ventilation accordingly impeded for the reasons above stated. If, on the other hand, the windows open directly

toward the west, then trouble is avoided until during approximately the last hour or so of school. Besides, it will be plainly seen by any careful observer, who is sufficiently interested in the care of the children to go into classrooms early in the morning or late in the afternoon, that, when these rooms face directly east or directly west, the whole room gets a better sunning than any other orientation will permit. Classrooms facing northeast or northwest get little or no sunshine in winter and are consequently not as wholesome as they should be.

All this discussion on proper orientation has been introduced here to show the absolute necessity of selecting as far as possible sites which will permit of planning and placing a schoolhouse so that all of the classrooms may get either east or west light. It is plain that to be able to do this in Wilmington the buildings must be skewed on the lot, and hence a larger lot is needed than if the streets ran with the cardinal points of the compass. We therefore recommend that all sites chosen for future buildings should take these necessities into account and that the board of education make them possible of fulfillment by selecting large grounds which will permit of planning and placing the buildings properly.

#### REASONABLE DISTANCES FROM HOMES.

5. It is as yet a practical necessity to place buildings for primary grades near enough to the homes of the children to permit them to walk to and from school safely and without too much exposure in bad weather. Hence the board is limited to restricted neighborhoods in selecting sites for such buildings. But after children are 10 or 12 years old they may walk a much farther distance to school not only without serious danger, but with physical advantages therefrom. It is absurd to plan to place all school buildings as near as possible to the homes of the children of the upper grades, and then when they get to school to pay some one to try to give them wholesome physical development in stuffy schoolrooms, or at least on some restricted playground. It is far more sensible to locate our buildings for such grades on lots big enough for the building and with ample playground left, even at the expense of a mile walk, than to sacrifice the chance for exercise in the open air by seeking to get the buildings within a few blocks of their homes.

#### NOISE OF STREET TRAFFIC TO BE AVOIDED.

6. The noise of a modern city's traffic has become so increasingly disturbing to schools situated near business sections that we recommend a careful study of the possible extension of such traffic and to keep as far from it as possible. Furthermore, the danger to chil-

dren at street crossings in busy sections of the city demands careful consideration when sites for school buildings are to be selected.

#### GUIDING PRINCIPLES IN BUILDING CONSTRUCTION.

While the following general statement, guiding principles for school architecture and school hygiene, may seem a bit out of place in a "report of conditions," still out of our sincere desire to be of real service we beg to include them and content ourselves with brief statements without going into a lengthy discussion giving adequate reasons for each and all of them. But since many of them imply lack in the present buildings we have thought it best to group them together rather than to duplicate them in that part of this report which expresses our judgments on each of the buildings:

1. It is safer and better to limit the height of elementary school buildings to not more than two stories.

2. It is safer, and in many ways better, when an assembly room is to be constructed to place it on the ground floor.

3. It is essential and economical to fireproof the furnace room and stairways thoroughly when the building is constructed. This precaution will lower insurance, as well as practically insure the safety of the children when the other usual precautions are taken.

4. There is no satisfactory evidence to prove that fire escapes will effectively insure the safety of school children. Such safety devices are better adapted for use of adults in factories and other inflammable buildings where numbers are, comparatively speaking, much smaller, and where self-reliance counts for so much.

5. As far as possible all school buildings should be planned and set so that either east or west light only is secured for classrooms.

6. All classrooms should have unilateral lighting, and, for Wilmington, the ratio between the area of glazing and that of the floor surface should be not less than 1 to 5; 1 to 4½ would be better.

7. Classrooms for elementary schools should not be over 31 feet long and 23 feet wide, interior measurement. A room of this size will accommodate 40 to 45 pupils, and no teacher should try to teach more. In high-school buildings a number of smaller classrooms should be included, in which small classes of advanced students or special students could recite. Large rooms for small classes are uneconomical and objectionable.

8. The height of the classrooms from finished floor to finished ceiling should not be over 13 feet; 12½ feet is better.

9. The bottoms of the windows should always be at least 4 feet above the floor, and their tops extend as near to the ceiling as possible. These are very important conditions for securing proper illumination and the protection of the vision of children.

**THE FLOORS AND LIGHTING.**

10. The floors of school buildings must be carefully laid, and constantly and properly cared for, because their condition is a vital point in school hygiene. The floors of practically all of the school buildings in Wilmington are in bad condition. They have been scrubbed until they have swelled and shrunk so much as to open cracks, leave splinters, and become scuffed up generally. All protruding nails in old badly worn floors should be driven in with a nail set, the desks removed, and the floors resurfaced with sandpaper machines. After they have been thus cleaned and smoothed they should be carefully oiled with a good, light floor oil, being careful to put on only as much as the floor will absorb. Following this treatment the floors should be swept daily with sawdust mixed with a little kerosene and clean sand. Specially prepared apparatus is now on the market for applying the oil. It is very poor economy to allow the floors to wear for lack of protection, as has been the case with the floors in these school buildings. There is no evidence to show that oiling floors of school buildings has rendered them a greater fire hazard, but we know it does eliminate much dust from the school-room air, and renders the building generally freer from bacterial life.

11. The oculists have assured us that either a very light buff or a cream colored white with a dull finish is the best color for the plastering of classroom. A large majority of the classroom walls in the school buildings of Wilmington are painted a dark dull green. This is a rather serious blunder both because of the great amount of light thus absorbed, and the disagreeable æsthetic result produced upon both children and teachers. They may in most cases not have noticed it, but the ill effects are registered unconsciously. It will cost no more to do it properly than improperly and we suggest that the error thus pointed out will not be again committed in Wilmington at least.

**BLACKBOARDS.**

12. For some reason a very poor quality of slate has been almost universally used for the blackboards. We could not with certainty find out from what source this slate was secured, but we earnestly recommend that no more of it be used. In many rooms it has worn uneven and become so gray that it is with great difficulty that the children can read what is written on the boards. The best quality of black slate should be used and set with great care. Such slate will last indefinitely and will not change its color, and is the most economical in the long run.

13. Blackboards should be set to fit the height of the children using them, and hence when buildings are planned for the children

of the elementary grades, each room should be planned for a specific grade. This demand was almost uniformly neglected in constructing the school buildings of the city. The blackboards we found are for the most part set as high for first-grade pupils as for those of the eighth grade, and consequently benches and platforms had to be improvised below them for the children to stand on to use the board with any degree of ease. This is not only bad for the children, for the janitor, and the teacher, but is also a worse than useless waste of public funds. It costs not one cent more to set blackboards the proper height than at an improper height, but does cost money to build a platform for the children to stand on to reach the boards.

The blackboards for the first and second grades should be set 26 inches above the floor, that for the third and fourth 28 inches, for the fifth and sixth 30 inches, and that for the seventh and eighth 34 inches. For high-school pupils the blackboards should be set approximately 36 inches above the floor. In all classrooms below the seventh grade the slates need not be over 3 feet wide, but a space above should be left between the plastering and the frame for the slate, to receive some cloth to which drawings and exhibit material might easily be fastened or removed at will. The teacher's board should be 4 feet wide.

#### JANITOR SERVICE.

14. The janitor service in Wilmington schools is below standard, though of course we found exceptions. We believe the reasons for this rather serious weakness may be stated as follows:

(a) Until very recently salaries had been too low to command the best service, and habits learned then have been carried over.

(b) There seems to be no decided qualification or training demanded from those who seek this employment.

(c) So far as we could discover there was no organized effort upon the part of the school authorities to instruct them after securing service, and no systematic attempt among the janitors themselves to learn new and better methods of schoolhouse keeping. We recommend that a course of lectures and demonstrations for janitors be instituted, and that they meet at least once a month for instruction and for conference among themselves in order that their work be in a measure professionalized. They should be furnished with magazines and literature bearing on the problems they meet almost daily and their work checked up regularly. A great deal of money could be saved in the coal bill of the public schools if janitors were carefully taught and trained how to get the best possible combustion in the furnaces. There are many useful tricks in all kinds of necessary labor.

(d) Salaries are so low that many janitors are forced to get other jobs in order to earn a livelihood. This means that in a number of instances janitors in the Wilmington schools are not at their buildings during the school session nor at regularly stated times even when schools are in session.

(e) The payment of the janitor of a building a lump sum out of which he must provide the help he needs. The tendency always is, in such case to unduly limit the assistance procured, consequently the work is in danger of being neglected. Again, such a plan is bad, for it places the janitors of the schools, no matter how conscientious they are—and undoubtedly there are a number in Wilmington who are taking a deep personal interest in their work—under a suspicion which may or may not be justified. It would seem a much better arrangement for the board to work out an adequate wage scale based on the floor space which the janitors are to care for, modified by special conditions which obtain in the several schools, pay the janitor in the larger buildings a sufficient additional sum for supervising his assistants, and then employ directly whatever helpers are needed in order to keep the buildings in the condition that the board demands. With such an arrangement any standard of cleanliness and efficiency in the upkeep of the buildings can be reached which the community demands and which the board requires without securing this at the expense of the janitors themselves, who are, under the present wage scale, undoubtedly working on too close a margin.

#### CHARACTERIZATION OF PRESENT BUILDINGS.

The remainder of this part of the report will be devoted to brief statements concerning the various buildings. We have not attempted to make a complete description of the buildings, but have merely registered our reaction toward them after looking them over as carefully as we could in the time at our command:

##### School No. 1.

This is a three-story building accommodating a grammar school, and very awkwardly planned, necessitating a great loss of time and much confusion in passing from study rooms to recitation rooms between recitations. There is no playground of any consequence, and the building in its present condition is safe for the children only under the most watchful care.

The joists in the basement are insufficiently protected from possible fire, the electric wiring is a source of danger, and the ducts installed for a previous hot-air heating system have never been removed, permitting dust and any possible smoke from the basement to enter the rooms. In case of fire these ducts would greatly facilitate its rapid spread through the building. These should be removed at once. It is in a very noisy section of the city, and is closely joined by old, inflammable buildings. The floors are badly worn, the basement contains too much débris, and the fire escapes are hazardous, and especially in

icy weather. The light, in most of the rooms, is insufficient on dark days, and from many points of view the building is unfit for school purposes.

We recommend that no more money be spent on this building except to make it as safe as possible during the time it must be used, and to dispose of it as soon as possible. This building has served for almost 50 years, and is now as badly out of date as a modern city without a sewer system.

#### School No. 2.

This building is in a very noisy place, occupying a rather dangerous corner where traffic is bound to increase. There is no playground of any consequence, many of the classes are overcrowded, and while the building is well cared for, it is on an unfit location for a school. The toilet facilities, especially for the boys, are insufficient. No more money should be spent on this building except to keep it in safe repair, and as soon as possible the lot and building should be sold. It was a mistake to make the addition to the old building. The lot, together with the old building, should have been sold at that time, for it had then been used more than 50 years, and could not be reconstructed along modern demands without undue expense.

#### School No. 3.

This is a miserable old building, badly planned, set on a small lot, and should never have been enlarged. It is badly lighted and surrounded with inflammable buildings. The janitor service in this building, if we may judge by conditions seen when it was visited, is unsatisfactory. The basement is dark, damp, and insufficiently protected from possible fire hazards. New outside toilets had just been installed, and we take this opportunity to point out to the board of education that thoughtlessness bordering on criminal neglect is here shown by the fact that the urinal troughs (and troughs should never again be used) are set too high to accommodate the little boys, and as a result the floor will soon be saturated and odorous. These things are inexcusable, for it would not have cost one cent more to set this trough with the proper slope and at the proper height to accommodate all.

The wash from the small brick-paved playground in the rear is likely to give much trouble near the entrances to the building during wet weather. An attempt to prevent this was a feeble and penurious attempt.

Nothing of any permanent consequence can be done with this building but to tear it down, buy a better site, and construct a new building. The old part has now served over 60 years, and the addition 30 years.

#### School No. 4.

This old part of the building, now used for a grammar school, contains 14 rooms, is heated by steam, is badly lighted, in that the windows are improperly set and in two adjoining sides of the classrooms. The old part of the building was erected 58 years ago, while the addition dates back 38 years. The basement is dark and damp, the floors are very dry, and should be oiled. It is not a fit place for a school building, and while the walls of the buildings are in fair condition it would be bad economy to spend more on this building than will care for the necessary upkeep. It would cost almost as much to transform it into a satisfactory building as to construct a new one according to approved plans. Here again in this building care must be taken to reduce the fire hazard to the lowest possible terms. Also the basement should be kept clear of all

debris, the joints over the furnace should be well protected, the cinders and ashes should be removed with the utmost pains, and all waste paper and other combustible material should be daily cared for. The new form of outside toilets were now in good condition, but constant care will be necessary during extremely cold weather to keep the water in all pipes and tanks from freezing.

#### School No. 5.

There were about 225 pupils enrolled in this building. It is an 8-room building with one classroom now unused. It is heated by steam with ordinary steam pipes connected up along the walls to serve as radiators. Because of the mild weather prevailing during the survey we are, of course, unable to speak experimentally concerning the effectiveness of the radiation. Theoretically it does not measure up to the requirements in windy, cold weather, and we suggest that special attention be given to this possible weakness in severe weather. The basement is merely a dark, badly ventilated cellar. Here again we wish to warn the board that fire protection is needed especially between the smoke-pipe and the ceiling above.

The classrooms have the usual disadvantages due to bilateral lighting. Either the teacher must face the light, or the pupils must face it.

The boys' toilet was found in a very bad condition, there being no urinal provided, and, of course, the floor and seats were wet and nasty. This type of outside toilet (girls' toilet included) is most disagreeable in cold and inclement weather. In warm weather the toilets should be flushed daily instead of once or twice a week. This type of toilet used in several of the older buildings should be discarded and modern sanitary ones installed within the building, or at least where heat may be secured and the children protected from inclement weather.

#### School No. 6.

This is a small building erected in 1853, hence nearly 70 years old, and was planned in accordance with schoolhouse ideals dominant at that time. That is to say it was planned at a time when little or no attention had been given to school architecture as such, and hence is poorly adapted to meet the modern demands of school hygiene. It is heated by low-pressure steam, of a later installation. The floors are in fair condition, but in need of oil. The lighting is faulty, as all of the school buildings of that period show. The windows are badly set and in two adjoining sides of the classrooms. There is a small playground. Since this is a small building and not planned with a view to further enlargement, it should be abandoned as soon as possible. It is our judgment that no attempt should be made to enlarge either of these buildings.

#### School No. 7.

This building represents perhaps the most archaic type of school building in the city. It is 3-stories high, with but two classrooms on each floor. The stairs are steep and the classrooms are lighted from three sides, making it impossible to seat the children to get proper light on their work. The teachers are compelled to face the light when in front of the children. The building is in no sense fireproof and it is easily possible in case of fire to have a dangerous panic. The walls are painted a dark "muddy" green color and are disagreeably dismal. The outside toilets are in a disreputable condition and altogether unworthy of the fine children and splendid teachers making up the school. The floors are dry and rough and need immediate attention. The area ways are dirty and some of them insufficiently covered to protect the children from danger.



The citizens of Wilmington should not be satisfied to continue the use of this building. Every precaution should be taken to prevent fire. One of the doors leading to the fire escape was found locked during school hours.

We recommend that this building be abandoned at as early a date as possible for it is wholly unsatisfactory for school purposes. It has been in use more than 60 years and can not economically be reconstructed into a modern building.

#### School No. 8.

This is another old building with a later addition. It is poorly lighted and most of the windows set so near the floor as to permit the outside reflected light to shine into the eyes of the children seated near the windows. This is especially true of the windows in the classrooms on the first floor. If the building is to be used much longer we recommend that the windows be raised so that their bottoms will be at least four feet above the floor. The floors are badly in need of proper care, and the cold and disreputable outside toilets should be abandoned and modern ones installed in a more convenient place. It is heated by low-pressure steam and so far as we could determine the plant was adequate.

There is a very small playground attached. The building is in a noisy place because of its proximity to both electric and steam railways.

#### School No. 9.

This building is only 25 years old, and while it was badly planned it will probably have to be used for some years. The floors are badly in need of care for they are very dry and wearing in places. The assembly room should never have been placed on the third floor. The light in the classroom is faulty because of bad orientation and faulty placing of windows. So far as we could determine there is no way to remodel this building without undue expense. We recommend that the floors should be oiled at once and that one or two additional toilet seats be placed for the boys.

The janitor service of this building, if we may judge from a single visit, is not up to standard.

#### School No. 10.

The older part of this building has been in use 50 years, the newer part nearly 30 years. The classrooms in the older part are badly lighted and there is no way to render them satisfactory from this or any other point of view. The addition is better, but has light from two adjoining sides. The outside toilets were in a bad and insanitary condition, and something ought to be done immediately to make them at least decent, if not comfortable. The basement is dark, but was as clean as it could well be made. Fireproofing is needed above the boiler and smoke pipe. There is very urgent need of a water spigot in the basement, and safety for the building demands it. Drinking fountains are badly needed in this building.

This building should be used no longer than absolutely necessary.

#### School No. 11.

The older part of this building was erected in 1860, and an addition in 1909. There are not enough seats in the girls' toilets and the boys' urinal is insanitary. The usual defect in fenestration is obvious, the walls of the classrooms are badly colored, the blackboards set with poor slate, and the floors need immediate attention. It is not advisable to attempt any reconstruction of the build-

ing but rather to keep it in good repair until such a time as the board can command the means to supplant it with a new building on a much larger lot.

#### School No. 12.

This building is practically identical in form with No. 10, and the general equipment no better. The outside toilets, especially the boys', were found in bad condition. The basement is dark and damp, and while there was some space for play it is totally inadequate. Here, as in No. 10, some relief can be had by raising all the windows upstairs in the old part of the building in order to get better lighting. New sashes are needed in any case. The floors need attention. The janitor was absent from the building when inspection was made.

#### School No. 13.

This building has been used about 30 years and is in fair condition. The floors, however, are very dry and need attention. The basement was clean, and with proper care there seems to be no fire hazard in any exceptional way. We were told by the teachers and the janitor that it is difficult to keep the building warm in cold weather and that it was necessary to keep on such days as high as 15 pounds pressure. The boiler seems to be too small to meet the needs economically. The walls of the classrooms are tinted the usual disagreeable green. The blackboards in some of the rooms are set so high as to make it necessary to have platforms under them so as to accommodate the children. This, of course, was simply lack of information on the part of the architect and should have been corrected by those who passed on the plans. The light is bad, because it comes from two or more adjacent sides, and additional drinking fountains should be set at once. The toilets are outside and the boys' was not in good condition.

The cost of reconstructing this building to make it wholly acceptable would be too great to warrant such a recommendation.

#### School No. 14.

This is practically a duplicate of Nos. 10 and 12, though the older part was built a few years later than the older parts of these. The same sort of addition was also made in 1892.

The janitor service here was markedly below standard if we may judge from a single visit. The radiators, as in the similar buildings mentioned, consist of ordinary steam pipes stretched across the room. These are never satisfactory and the teachers complained of lack of heat in cold weather. The sashes in the older part of the building are in a very bad condition, some of them indeed were so badly worn as to make it doubtful whether they will hold the glass much longer. When these are replaced the windows should be set higher if this building is to be used much longer. The boiler room is not sufficiently protected from fire, especially directly above the smoke pipe and the boiler. There are insufficient drinking fountains and those now supplied are set too high. The outflow from the drinking fountains spreads out on the walk, and during freezing weather this will of necessity make much trouble from icy walks. Besides, even at other times, this outflow makes a sloppy appearance about the entrance. This can easily be corrected by setting underground drain to lead the water to the street. The boys' toilet is in very bad condition and should be condemned at once. It is simply a foul cesspool and unfit for the use of any one.

## No. 15.

This building has been in use 45 years, was built according to models of that day, and of course was badly orientated, with windows on two or three sides of the classrooms, and incorrectly set. The floors need attention, for they are very dry and wearing. The heating system was complained of, and there is a real fire hazard here unless the utmost care is taken. Ashes had accumulated to an unwarranted amount, but were being removed when the inspection was made. Fireproofing above the boiler and the smoke pipe is needed at once. The most that can be done with this building is to treat the floors at once, fire-proof as indicated, see that ashes are removed daily, keep the basement free of debris, and get rid of this building as soon as possible.

## School No. 16 (Howard Colored High School).

This building is used for colored pupils of the kindergarten, the elementary grades, and the high school. It is seriously overcrowded, is a dangerous fire trap because of the lack of halls, the use of gas in the basement, and general condition of the basement. Its present most awkward arrangement of rooms has resulted from additions to an old building which was originally very poorly planned. The only just, safe, and economical thing to do with this building is to sell it or tear it down. It is wholly unfit for the purposes now used and is a real menace as well.

## School No. 17.

This building, which has been used nearly 40 years, is badly placed on a small lot in low, wet land, and is not a fit building in many respects. The boys' toilet is not supplied with a urinal, and as a result it was in a very nasty condition. The fence in the rear, separating the boys' side from the girls' side, was broken, and we are sure indecencies are perpetrated as a result. In fact, we observed such while making the inspection. This could be repaired in a few minutes, and why it was left so we can not understand. As soon as possible this building should be sold for other purposes.

## School No. 18 (colored).

This building, used for colored children, is situated in a very insanitary neighborhood and is totally unfit for school purposes. The lot is small and wet, the rooms are very dark and heated by stoves. The building was badly planned and constructed nearly 40 years ago. There are outside pit toilets. The building was about as clean as conditions permitted. There is nothing to do with this building but to abandon it at the very first opportunity.

## School No. 19.

This building is in a fair state of repair but, like all others of its kind, was badly planned. There is nothing to do but keep it in good repair and bide the time when something better can be had.

We wish to suggest that the boiler room should be made safer by fireproofing the joists above the boiler and especially above the smoke pipe. The basement is dark and rather damp. The toilets are outside and not connected with the sewers. This condition should be remedied at once. There are many old desks and other debris in the basement. This material should be taken out. The floors need attention.

## School No. 20.

This building, like No. 19, is in a fair condition, but badly planned. It has been used 38 years. The only change or reconstruction we deem advisable in this building is, if possible, to lift the windows at least 16 inches higher. This would give much relief in the way of illumination and especially shield the eyes of the children from much outside reflected light. The walls are of the usual dark-green color and absorb much light. Moreover they offend every sense of esthetic taste.

There are not enough seats in the toilets either for the girls or the boys, especially the latter. The urinal trough is odorous and bad. The floors need attention. If the basement were cemented a very useful playroom could be made for bad weather. This building is worth this outlay.

## School No. 21 (colored).

This building, erected in 1891, is used for colored children. There were about 200 children in attendance; none above the sixth grade. The building was in a fair state of repair, but the janitor service inefficient. The janitor was away and the furnace room was locked when inspection was made. The basement in the boys' toilet was damp and unsatisfactory. There were some new toilet stools and tanks stored in this basement. They should be taken out and put to use in some other building. The lighting was faulty, but can not be changed economically. The floors need attention.

## School No. 22 (colored).

This is a rather curiously planned building, and while it has a commodious gymnasium-assembly hall, the classrooms are ill adapted for school purposes. The janitor was away from the building, the furnace-room door was locked, and the principal could not find a key to unlock it. We were told that this janitor had "another job and was away from the school building much of the school day." This, we submit, is totally unsafe, and such a state of affairs is unworthy of the city. The floors need attention. There is apparently nothing to be done with this building but to keep it in repair and make the most of a rather awkward arrangement. It can not be reconstructed economically, or additions made, for the lot is too small and the environment unsuitable.

## School No. 23.

This building is one of the newer buildings, erected in 1906. It is in fair condition and while better planned than most of the buildings in the city is set improperly on the lot. There is a chance here to add to the school ground by purchasing the adjoining property. This should be done at once for this section of the city is developing rapidly and more classrooms will be needed soon. Two-thirds of the basement on the north side should be partitioned off from the coal bin, cemented and used as a playroom in bad weather. The iron beams and posts in the basement are badly in need of paint. Electric wiring should be installed and the windows and floors put in order.

24.

This the  
some in

city but is overcrowded. The tran-  
makes ventilation difficult. These

should be put in order and used instead of the short windows. The small rooms now being used as classrooms are very dark and should not be used. There is insufficient light both artificial and natural. More electric lights should be installed immediately. The floors are in bad condition and should be gone over at once. No further additions should be made to this building.

#### School No. 25.

There is much congestion in and about this building, partly due to crowding on the grounds four portable one-classroom buildings. And may we say here that two of these portables were badly placed from the point of view of proper lighting. The buildings were fairly clean, and with due care seem safe enough from fire hazards; but a sudden fright or stampede here might be very disastrous. Every precaution should be taken. The toilet seats are set too far from the light and the toilet rooms are unnecessarily large. Additional land should be purchased for this building and the portables be removed a further distance from the main building. Special toilet facilities for the pupils in these buildings should be included in this suggested change. The best school garden we saw in this city was in connection with this school. The floors should be treated and kept in better condition.

#### School No. 26.

The building known as No. 26 is badly situated near a marshy place used as a dumping ground. The principal stated that at times the odor from refuse collected there was quite disagreeable at the schoolhouse. In addition complaint was made because of the gaseous odors released by the burning of waste from the Bond Manufacturing Co.'s plant not far away. This was noticeable during the inspection. All that can be done here now is to keep the building in repair until other housing arrangements can be made. To this end the toilets should be put in better shape at once, especially the one for the boys, the floors should be put in good condition, walks laid and the retaining wall guarded to prevent accidents. The playgrounds should be graded and some apparatus for little folks installed.

#### School No. 27.

No. 27 is a small building adjoining the park and offers to the children attending the best opportunity for play and recreation of any building in the city. The heating of this building was complained of. The boiler seems to be too small for the amount of radiation demanded. The building was clean and apparently safe. The walls were painted the usual dark green. The blackboards in this building were in the main usually poor, some of them set too high above the floor, and benches were necessary in order that the children might use them. The lot upon which the building is placed is too small and if more classrooms are needed an economical and permissible addition to this building will be almost an impossibility. The usual faulty lighting and orientation mars the use of this building, as the same defects mar nearly all the school buildings of the city.

#### School No. 28.

This is a three-story building used for the grammar grades. There are 670 children in the building. The building is in fair condition except the floors. They have been neglected and consequently are badly worn. The toilet facilities

ties for the boys are inadequate, there being but six seats with 335 boys attending. This toilet in addition is very dark and insanitary. Additional light, ventilation, and seats and urinals should be supplied at once. The custom of shifting the children from classroom to classroom for departmental work makes much confusion, involves the impossibility of properly adjusting seats to suit the children and necessitates tremendous wear on the building, especially the hall and stairways. We wondered what would happen here if in the midst of one of these numerous transfers a fire should break out, or a false alarm be sounded. It would be a serious situation to say the least, and if this plan is continued the attention of the teachers should be called to the danger involved. While it would handicap some of the teachers to move instead of the children because of the needed equipment, still there is a possibility of much relief here, with less risk if those teachers who can move would do so. Then, of course, this constant shifting of the children multiplies the possibility of spreading any contagious disease that might break out.

The building is not well arranged, though it represents a fairly good model for the time when it was built. It has been used about 35 years. The floors should be looked after at once and kept in good condition.

#### School No. 29 (colored).

This is one of the best planned buildings in the city. It is used for colored children and was found in neat, clean condition with the exception of the boys' toilet. This should be put in a sanitary condition immediately. We recommend also that a cement floor be put in on the north side of the basement, so that this space may be utilized for indoor games during bad weather. The usual mistake of putting an assembly room on the third floor was again noted. The walls are the usual dirty green color and absorb much light. The floors are dry and need oiling at once. The best stairways seen in any elementary building in the city are to be found here.

The janitor was absent from the building when the inspection was made.

#### School No. 30.

This building is the newest grammar school in the city, and was placed on an altogether unsatisfactory lot as to size and shape. It was practically impossible for any architect to plan a good building, with the number of rooms demanded, for this lot. More money was wasted, we imagine, in this building because of the necessity of making it fit this lot than would have been needed to buy a good site somewhere in this neighborhood. The building is now overcrowded. There is no chance to reconstruct or enlarge this building. The lighting is troublesome, but, possibly, could not be prevented. We noticed that the bottoms of the windows are approximately the proper height above the floor. The desks were in good condition and more carefully set than any elsewhere seen.

#### The High School.

There are only two recommendations that we deem it necessary to make for these buildings, despite the fact that the classrooms in the adjoining sides of the two buildings are very dark.

We wish to recommend that another story or passageway be put on the bridge between the buildings, so that students may pass from one to the other one story higher. This is needed to relieve the congestion of the one passage now used and also to prevent so much climbing up and down stairs. This addition can

easily be made and at a slight expense and should be ordered at once. The floors throughout both buildings need treatment.

We wish to express our disapproval of making high-school buildings four stories high, because of the added fire hazard, but more especially because of the excessive amount of stair climbing imposed upon girls of high-school age. We also wish to point out the fact that there is much waste space in the annex included in cloakrooms which are not used to any appreciable extent and never will be as long as this building is used for high-school purposes. Any architect should have known that a student must have some form of locker for his wraps and that these open cloakrooms could not meet the needs. This plan should have been checked up and revised by some high-school teacher who knows what is demanded. The lack of such attention cost the city many thousands of dollars. Furthermore, this annex should never have been built, for there was insufficient ground, and the classrooms on the adjoining sides of both buildings would of necessity be doomed to darkness. This mistake almost approximates criminal ignorance.





# APPENDIX.

## EXHIBITS I TO XXI.

### EXHIBIT I.

#### WILMINGTON PUBLIC SCHOOLS.

##### GENERAL FUND STATEMENT.

(As of June 30, 1920.)

<i>RECEIPTS.</i>		<i>DISBURSEMENTS.</i>	
Cash (balance July 1, 1919)---	\$16,901.58	Liquidation of accounts payable, applicable to 1918-19--	\$17,754.99
Revenues, 1919-20-----	587,971.52	Expenditures of school year 1919-20-----	600,078.11
Accounts payable, applicable to 1919-20-----	18,598.05	Transfer to new building fund--	2,072.55
		Cash (balance June 30, 1920)---	3,567.50
Total-----	623,471.15	Total-----	623,471.15

##### NEW BUILDING FUND STATEMENT.<sup>1</sup>

(As of June 30, 1920.)

<i>RECEIPTS.</i>		<i>DISBURSEMENTS.</i>	
Cash (balance July 1, 1919)---	\$3,152.91	Expenditures of school year 1919-20-----	\$54,530.24
Revenues, 1919-20-----	48,758.77	Cash (balance June 30, 1920)---	190.45
Transfer from general fund--	2,072.55		
Accounts payable, school year 1919-20-----	5,741.46		
Total-----	54,720.69	Total-----	54,720.69

##### COMBINED FUND STATEMENT.

(As of June 30, 1920.)

<i>RECEIPTS.</i>		<i>DISBURSEMENTS.</i>	
Cash (balance July 1, 1919)---	\$20,054.49	Liquidation of accounts payable, applicable to school year 1918-19-----	\$17,754.99
Revenues, school year 1919-20-----	631,725.29	Expenditures for school year 1919-20-----	654,606.35
Accounts payable, school year 1919-20-----	24,339.51	Cash (balance June 30, 1920)---	3,757.95
Total-----	676,119.29	Total-----	676,119.29

<sup>1</sup> Not including appropriation of \$100,000 for school building, levied in school tax in 1919-20, but not as yet turned over to department of public education.

<sup>2</sup> As prepared from existing data.

## EXHIBIT II.

## CITY OF WILMINGTON—BOARD OF EDUCATION.

Statement of Expenditures from New Building Fund Account for the Fiscal Years 1910-11 to 1919-20, inclusive, as Shown by Books of the City Auditor.

Fiscal years.	Building and equipment.	Bond payments.	Total.	Source of funds.
1910-11...	\$21,065.67	.....	\$21,065.67	Bond issue of \$20,000 and appropriation from city council.
1911-12...	27,062.38	.....	27,062.38	Do.
1912-13...	68,948.14	.....	68,948.14	Do.
1913-14...	6,660.75	\$40,000.00	46,660.75	Appropriation from city council.
1914-15...	.....	20,000.00	20,000.00	Do.
1915-16...	58,684.90	.....	58,684.90	Bond issue of \$166,000 and appropriation from city council.
1916-17...	95,569.92	.....	95,569.92	Bond issue of \$27,000 and appropriation from city council.
1917-18...	45,169.09	.....	45,169.09	Appropriation of city council.
1918-19...	59,172.13	20,000.00	79,172.13	Do.
1919-20...	28,924.15	20,000.00	48,924.15	Do.
Total...	411,257.13	100,000.00	511,257.13	

## EXHIBIT III.

Statement of Wilmington Public School Property (Land, Buildings, and Equipment) as of December 31, 1919.

Buildings.	Total.	Land. <sup>1</sup>	Buildings. <sup>2</sup>	Equipment. <sup>3</sup>
Total.....	\$2,324,857.22	\$206,417.00	\$1,971,623.35	\$146,816.87
No. 1.....	82,347.01	14,950.00	62,030.00	5,367.01
No. 2.....	73,314.38	7,500.00	61,105.50	4,708.88
No. 3.....	34,749.25	4,500.00	27,426.20	2,823.05
No. 4.....	58,601.11	10,000.00	45,322.70	3,278.41
No. 5.....	44,231.19	5,000.00	36,274.00	2,957.19
No. 6.....	25,766.13	7,000.00	16,981.00	1,785.13
No. 7.....	28,674.76	4,950.00	22,107.00	1,617.76
No. 8.....	45,308.16	7,350.00	35,654.60	2,303.56
No. 9.....	100,897.64	6,375.00	88,449.50	6,073.14
No. 10.....	44,289.58	5,000.00	36,337.00	2,952.58
No. 11.....	67,595.05	5,100.00	57,503.50	4,991.55
No. 12.....	45,872.68	4,120.00	38,132.00	3,620.68
No. 13.....	60,061.72	2,400.00	54,951.50	2,710.22
No. 14.....	44,790.94	2,500.00	39,299.50	2,991.44
No. 15.....	45,604.79	5,000.00	37,656.25	2,948.54
No. 16.....	93,003.56	2,850.00	79,951.50	10,202.06
No. 17.....	42,104.08	4,800.00	34,974.00	2,330.08
No. 18.....	11,985.45	600.00	10,593.00	792.45
No. 19.....	50,057.18	7,500.00	39,754.00	2,803.18
No. 20.....	42,726.64	5,000.00	36,459.00	1,267.64
No. 21.....	41,700.13	2,100.00	37,253.00	2,347.13
No. 22.....	57,846.49	<sup>2</sup> 2,450.00	52,625.00	2,771.49
No. 23.....	56,498.28	2,080.00	50,087.00	4,331.28
No. 24.....	144,645.50	14,000.00	123,020.00	7,625.50
No. 25.....	65,750.57	2,992.00	57,339.90	5,418.67
No. 26.....	27,741.82	800.00	25,137.50	1,804.32
No. 27.....	28,714.03	2,120.00	24,874.50	1,719.53
No. 28.....	172,779.08	9,000.00	153,154.20	10,624.88
No. 29.....	95,067.76	4,200.00	85,888.00	4,979.76
No. 30.....	136,802.16	<sup>2</sup> 7,000.00	121,558.50	8,243.66
High school.....	428,830.10	20,680.00	379,724.00	28,426.10
Lot, 22d and Locust.....	4,000.00	<sup>2</sup> 4,000.00	.....	.....
Lot, 20th and Washington Streets.....	22,500.00	<sup>2</sup> 22,500.00	.....	.....

<sup>1</sup> Values given in Report of Wilmington Public Schools, 1912.

<sup>2</sup> Values set forth in appraisal report of Prudential Engineering Co. of Dec. 31, 1919.

<sup>3</sup> Approximate value.

## EXHIBIT IV.

Comparative Statement of the Value of School Property in 45 Cities of Population of 30,000 to 100,000, 1917-18.

Thousand dollars.		Thousand dollars.	
4,432	1. Akron, Ohio.	1,706	24. Pasadena, Calif.
4,442	2. Springfield, Mass.	1,662	25. Berkeley, Calif.
4,443	3. Des Moines, Iowa.	1,570	26. Flint, Mich.
4,349	4. Hartford, Conn.	1,375	27. Bay City, Mich.
3,842	5. Salt Lake City, Utah.	1,371	28. Springfield, Ohio.
3,714	6. Duluth, Minn.	1,352	29. Little Rock, Ark.
3,334	7. Tacoma, Wash.	1,338	30. Decatur, Ill.
3,178	8. Elizabeth, N. J.	1,305	31. Cedar Rapids, Iowa.
3,061	9. Lynn, Mass.	1,280	32. Pawtucket, R. I.
2,825	10. Oklahoma City, Okla.	1,258	33. Wheeling, W. Va.
2,500	11. Canton, Ohio.	1,241	34. Altoona, Pa.
2,474	12. Peoria, Ill.	1,232	35. Topeka, Kans.
2,463	13. Utica, N. Y.	1,220	36. Oshkosh, Wis.
2,301	14. Bayonne, N. J.	1,198	37. Manchester, N. H.
2,237	15. Wilmington, Del.	1,141	38. Montgomery, Ala.
2,134	16. Evansville, Ind.	1,071	39. Salem, Mass.
2,131	17. Fort Worth, Tex.	900	40. Chattanooga, Tenn.
2,122	18. Springfield, Ill.	780	41. Savannah, Ga.
1,997	19. Wilkes-Barre, Pa.	725	42. Meriden, Conn.
1,946	20. Terre Haute, Ind.	654	43. Lexington, Ky.
1,896	21. Butte, Mont.	588	44. Mobile, Ala.
1,881	22. Binghamton, N. Y.	440	45. Charleston, S. C.
1,801	23. Kansas City, Kans.		

## EXHIBIT V.

Statement of Assessed Valuation of Property in City of Wilmington. Tax Rates (City, School, and Total), and of Tax Levies for the Years 1910 to 1920, inclusive.

Fiscal years.	Assessed valuation.	Tax rates.			Tax levy.
		Total.	City.	School.	
1910-11.....	\$52,338,566	\$1.50	\$1.01	\$0.49	\$776,267
1911-12.....	53,886,696	1.50	1.02	.48	827,482
1912-13.....	55,453,280	1.53	1.03	.50	867,512
1913-14.....	57,526,338	1.53	1.03	.50	902,042
1914-15.....	76,270,588	1.35	.99	.36	1,043,807
1915-16.....	78,771,659	1.35	.95	.40	1,077,217
1916-17.....	80,304,630	1.35	.89	.46	1,098,080
1917-18.....	83,438,675	1.35	.89	.46	1,138,288
1918-19.....	85,133,225	1.75	1.25	.50	1,545,674
1919-20.....	91,705,750	1.75	1.25	.50	1,686,033
1920-21.....	106,566,025	1.75	1.25	.50	1,946,103

## EXHIBIT VI.

Comparative Statement of Assessed Property Available for Taxation, Reduced to Common Basis of 100 Per Cent Valuation in 45 Cities of 30,000 to 100,000 Population, 1917-18.

Thousand dollars.		Thousand dollars.	
230,405	1. Akron, Ohio.	106,506	12. Canton, Ohio.
201,787	2. Springfield, Mass.	106,000	13. Butte, Mont.
197,840	3. Duluth, Minn.	101,214	14. Kansas City, Kans.
181,733	4. Montgomery, Ala.	97,836	15. Lynn, Mass.
178,000	5. Salt Lake City, Utah.	93,534	16. Wheeling, W. Va.
172,000	6. Des Moines, Iowa.	91,768	17. Wilkes-Barre, Pa.
151,436	7. Hartford, Conn.	87,469	18. Wilmington, Del.
125,000	8. Chattanooga, Tenn.	82,845	19. Utica, N. Y.
114,692	9. Tacoma, Wash.	81,495	20. Springfield, Ill.
108,053	10. Fort Worth, Tex.	80,800	21. Little Rock, Ark.
106,667	11. Savannah, Ga.	80,487	22. Pasadena, Calif.

Thousand dollars.		Thousand dollars.	
81, 012	23. Flint, Mich.	58, 278	35. Altoona, Pa.
80, 000	24. Terre Haute, Ind.	57, 995	36. Mobile, Ala.
79, 948	25. Peoria, Ill.	54, 762	37. Charleston, S. C.
79, 580	26. Manchester, N. H.	53, 575	38. Decatur, Ill.
78, 333	27. Evansville, Ind.	52, 791	39. Binghamton, N. Y.
77, 514	28. Elizabeth, N. J.	42, 413	40. Salem, Mass.
77, 379	29. Oklahoma City, Okla.	40, 020	41. Cedar Rapids, Iowa.
76, 057	30. Pawtucket, R. I.	37, 662	42. Bay City, Mich.
75, 473	31. Berkeley, Calif.	37, 290	43. Lexington, Ky.
74, 609	32. Springfield, Ohio.	34, 864	44. Oshkosh, Wis.
68, 485	33. Bayonne, N. J.	34, 137	45. Meriden, Conn.
63, 108	34. Topeka, Kans.		

## EXHIBIT VII.

Comparative Statement of Tax Rates, Per Thousand, for School Purposes, Reduced to Common Basis of 100 Per Cent Valuations of Property Available for Taxation in 45 Cities of 30,000 to 100,000 Population, 1917-18.

\$11. 08	1. Cedar Rapids, Iowa.	\$5. 50	24. Manchester, N. H.
10. 99	2. Des Moines, Iowa.	5. 40	25. Terre Haute, Ind.
9. 18	3. Pasadena, Calif.	5. 31	26. Springfield, Mass.
9. 00	4. Bayonne, N. J.	5. 29	27. Elizabeth, N. J.
8. 79	5. Oklahoma City, Okla.	5. 24	28. Oshkosh, Wis.
8. 78	6. Peoria, Ill.	5. 00	29. Altoona, Pa.
8. 50	7. Topeka, Kans.	5. 00	30. Little Rock, Ark.
8. 00	8. Kansas City, Kans.	4. 83	31. Duluth, Minn.
7. 14	9. Utica, N. Y.	4. 81	32. Canton, Ohio.
6. 95	10. Bay City, Mich.	4. 70	33. Springfield, Ohio.
6. 60	11. Meriden, Conn.	4. 60	34. Wilmington, Del.
6. 43	12. Binghamton, N. Y.	4. 40	35. Lexington, Ky.
6. 37	13. Berkeley, Calif.	4. 37	36. Flint, Mich.
6. 25	14. Butte, Mont.	4. 25	37. Hartford, Conn.
6. 18	15. Salem, Mass.	4. 25	38. Tacoma, Wash.
6. 00	16. Evansville, Ind.	3. 60	39. Wheeling, W. Va.
6. 00	17. Wilkes-Barre, Pa.	3. 36	40. Charleston, S. C.
6. 00	18. Decatur, Ill.	3. 25	41. Roanoke, Va.
6. 00	19. Springfield, Ill.	3. 00	42. Mobile, Ala.
5. 95	20. Akron, Ohio.	3. 00	43. Fort Worth, Tex.
5. 94	21. Salt Lake City, Utah.	2. 71	44. Savannah, Ga.
5. 50	22. Lynn, Mass.	1. 44	45. Chattanooga, Tenn.
5. 50	23. Pawtucket, R. I.		

## EXHIBIT VIII.

General \* Statement of Expenditures of Wilmington Public Schools for the Fiscal Year 1919-20.

	Per cent.	Amount.
TOTAL.....	100. 0	\$654, 606. 35
1. EXPENDITURES PERTAINING TO THE PRESENT.....	84. 7	554, 633. 66
GENERAL CONTROL SERVICE.....	3. 5	22, 669. 96
Regulation and control <sup>1</sup> .....	. 5	3, 501. 00
School election expense.....		
Board of education and secretary's office.....	. 5	\$3, 501. 00
Direction and control.....	1. 5	9, 621. 23
Superintendent's office.....	1. 0	6, 621. 23
Enforcement of compulsory education laws.....	. 5	3, 000. 00
Census enumeration.....		
Instruction supervision.....	. 9	5, 657. 14
General instruction supervision.....		
Vocational instruction supervision.....	. 1	484. 00
Americanisation instruction supervision.....	. 8	5, 173. 14
Property supervision.....	. 6	3, 890. 59
Supervision of operation of buildings.....	. 3	1, 899. 53
Supervision of repairs.....	. 3	1, 991. 06

\* See detail tables supporting the above.

<sup>1</sup> Set forth in Wilmington city charter as supervision and control.

	Per cent.	Amount.
<b>INSTRUCTIONAL SERVICE</b> .....	65.1	\$426,448.66
Day school.....	62.4	408,613.03
Undistributed.....	.6	\$3,477.56
Elementary instruction.....	48.4	317,019.13
White schools.....	42.1	\$275,670.50
Colored schools.....	6.3	41,348.63
Secondary instruction (high schools).....	13.2	86,822.25
White schools.....	11.4	75,205.58
Colored schools.....	1.8	11,616.67
Higher instruction (normal school training).....		
Colored schools.....	.2	1,294.09
Night school.....	2.0	13,198.86
Elementary instruction—Americanization.....	1.7	10,766.86
Secondary instruction—Vocational.....	.3	2,432.00
Continuation school.....	.7	4,636.77
Part-time school (in shops).....		
Secondary instruction—Vocational.....	.7	4,375.73
Extension school (day classes for adults).....		
Elementary instruction—Americanization.....		261.04
<b>PROPRIETARY SERVICE</b> .....	15.5	101,213.44
Operation of school plant <sup>1</sup> .....	8.3	54,349.56
Elementary school buildings and grounds.....	6.1	40,071.75
Undistributed.....	.4	2,936.23
White schools.....	4.8	31,422.53
Colored schools.....	.9	5,712.99
High-school buildings and grounds.....	2.1	13,812.81
Undistributed.....	.1	520.04
White schools.....	2.0	12,999.10
Colored schools.....		323.67
Other than public school buildings.....	.1	465.00
Upkeep of school plant.....	7.2	46,863.88
Elementary school buildings, grounds, and equipment.....	5.4	35,202.84
Undistributed.....	1.4	9,154.37
White schools.....	3.7	24,375.53
Colored schools.....	.3	1,672.94
High-school buildings, grounds, and equipment.....	1.8	11,661.04
Undistributed.....	.3	1,801.32
White schools.....	1.5	9,762.83
Colored schools.....		96.89
<b>AUXILIARY AGENCIES AND OTHER ACTIVITIES</b> .....	.6	4,301.60
Medical inspection of school children.....	.5	3,104.61
Contribution toward lunch service expense.....	.1	796.99
Home and school gardens.....		400.00
Community use of school buildings.....		
<b>2. EXPENDITURES PERTAINING TO THE PAST</b> .....	2.8	18,002.50
Fixed charges:		
Interest.....	2.6	17,002.50
Contribution toward teachers' retirement fund.....	.2	1,000.00
<b>3. EXPENDITURES PERTAINING TO THE FUTURE</b> .....	12.5	81,970.19
Outlays.....	8.3	54,470.19
Administration property.....	.1	582.85
Elementary school property.....	6.1	39,812.77
Undistributed.....	3.6	23,730.62
White schools.....	1.8	11,408.31
Colored schools.....	.7	4,673.84

<sup>1</sup> Operation of school plant distributed by school organizations, total, (8.3 per cent) \$54,349.56; day school, (7.9 per cent) \$51,787.51; night school, (0.4 per cent) \$2,562.05; general, \$334; Americanization, (0.4 per cent) \$2,396.05; vocational instruction, —; continuation school, —.

## Outlays—Continued.

High-school property.....	2.1	\$14,045.00
White schools.....	2.1	\$14,045.00
Colored schools.....		
Property other than in school buildings.....		28.88
Payment of debt <sup>1</sup> .....	4.2	\$27,500.00
Elementary school investment.....	1.1	7,600.00
High-school investment.....	3.1	20,000.00

<sup>1</sup> Does not include payment of short term loans, negotiated to cover any interim prior to receipt of revenues.

## EXHIBIT IX.

Statement of Cost of General Control Service of Wilmington Public Schools,  
Fiscal Year 1919-20.

Purposes.	Total.	Salaries.	Supplies.	Other expense
Total.....	\$22,669.96	\$20,519.21	\$1,931.42	\$219.33
Regulation and control service <sup>1</sup> .....	3,501.00	3,199.95	225.71	75.34
School elections expense.....				
Board of education and secretary's office.....	3,501.00	3,199.95	225.71	75.34
Direction and control service.....	9,621.23	9,051.92	488.57	80.74
Superintendent's office.....	6,621.23	6,051.92	488.57	80.74
Enforcement of compulsory education laws.....	3,000.00	3,000.00		
Census enumeration.....				
Instruction supervision.....	5,657.14	4,409.55	1,184.34	63.25
General instruction supervision <sup>2</sup> .....				
Vocational instruction supervision.....	484.00	484.00		
Instruction supervision.....	5,173.14	3,925.55	1,184.34	63.25
<sup>1</sup> Designated by Wilmington city.....	3,890.59	3,857.79	32.80	
<sup>2</sup> General instruction supervision dist.....	1,899.53	1,899.53		
<sup>3</sup> Includes \$66.25 Americanization expense.....	1,991.06	1,958.26	32.80	

<sup>1</sup> Supervision and control.  
<sup>2</sup> No day school elementary instruction.

## EXHIBIT X. —

Statement of Cost of Instructional Service in Wilmin.  
Fiscal Year 1919-20.

in Public Day Schools.

Schools.	Total.	Salaries of supervisors, principals, and clerks.	Salaries of teachers.	Textbooks, instructional supplies, and other expenses.
Total.....	\$408,613.03	\$48,494.34	\$339,736.66	
Undistributed.....	3,477.56			\$20,382.03
Elementary instruction.....	317,019.13	43,128.43	261,573.82	3,477.56
White schools.....	275,670.50	37,336.37	227,524.79	12,316.68
Supervision.....	8,008.58	7,828.09		
Building No. 1.....	17,752.11	1,543.75	15,705.05	
2.....	11,120.96	1,353.13	9,462.29	
3.....	9,783.50	1,319.25	8,231.95	180.49
4.....	17,498.06	1,575.00	14,954.22	503.31
5.....	6,044.60	1,189.50	4,594.80	305.54
6.....	6,695.89	1,200.00	5,292.84	232.39
				968.84
				260.30
				203.05

**Statement of Cost of Instructional Service in Wilmington Public Day Schools,  
Fiscal Year 1919-20—Continued.**

Schools.	Total.	Salaries of supervis- ors, prin- cipals, and clerks.	Salaries of teachers.	Textbooks, instruc- tional sup- plies, and other ex- penses.
Elementary instruction—Continued.				
White schools—Continued.				
Supervision—Continued.				
Building No. 7.....	\$5,961.52	\$719.50	\$4,912.36	\$329.66
8.....	6,904.85	740.00	5,854.98	309.87
9.....	16,958.90	1,539.42	14,830.14	589.34
10.....	7,255.67	767.38	6,169.17	319.12
11.....	11,745.90	1,367.50	10,095.17	283.23
12.....	8,978.83	1,305.00	7,378.40	295.43
13.....	8,323.29	806.32	7,372.17	144.80
14.....	8,370.90	1,305.00	6,772.97	292.93
15.....	9,429.45	802.26	8,221.60	405.59
17.....	5,953.22	704.95	5,000.87	247.40
19.....	8,688.31	1,254.00	7,062.38	371.93
20.....	9,531.99	1,305.00	7,814.62	412.37
23.....	8,748.91	1,257.01	7,270.24	221.66
24.....	23,300.52	1,641.55	20,470.11	1,188.86
25.....	13,507.07	1,425.00	11,614.71	467.36
26.....	4,865.56	670.02	3,962.00	233.54
27.....	4,087.23	632.11	3,397.40	57.72
28.....	23,765.53	1,640.63	20,715.78	1,409.12
30.....	12,389.15	1,445.00	10,368.57	575.58
Colored schools.....	41,348.63	5,792.06	34,049.03	1,507.54
Supervision.....	1,130.55	1,105.00		25.55
Building No. 16 (elementary grades).....	13,770.31	469.60	12,663.00	637.71
18.....	2,846.21	1,042.37	1,683.91	119.93
21.....	6,991.39	1,235.00	5,496.76	259.63
22.....	3,715.40	1,090.02	2,416.09	209.29
29.....	12,894.77	850.07	11,789.27	255.43
Secondary instruction (high schools).....	86,822.25	5,365.91	76,868.75	4,587.59
White schools:				
General instruction.....	75,205.58	4,661.50	66,343.66	4,200.42
Supervision.....	418.97	393.50		25.47
Wilmington High School.....	74,786.61	4,268.00	66,343.66	1,474.85
Vocational instruction, Wilmington High School.....				
Colored schools:				
General instruction, Howard High School (Bldg. No. 16).....	11,616.67	704.41	10,525.09	387.17
Vocational instruction, Howard High School.....				
Higher instruction (normal training):				
Colored school, Howard High School.....	1,294.09		1,294.09	

<sup>1</sup> Includes graduation expenses of \$297.29.

<sup>2</sup> Includes graduation expenses of \$227.75.

**EXHIBIT XI.****Statement of Cost of Instructional Service of Wilmington Public Night Schools, Fiscal Year 1919-20.**

	Total.	Salaries of teachers.	Text-books.	Other supplies used in instruction.	Other expense of instruction.
<b>TOTAL.....</b>	<b>\$13,198.86</b>	<b>\$11,023.90</b>	<b>\$975.56</b>	<b>\$1,156.93</b>	<b>\$42.47</b>
Elementary instruction.....	10,766.86	8,591.90	975.56	1,156.93	42.47
Americanization instruction.....	10,766.86	8,591.90	975.56	1,156.93	42.47
Undistributed.....	215.13	215.13			
Building No. 1.....	772.27	622.38	67.28	79.79	2.82
4.....	1,568.78	1,269.00	134.56	159.58	5.64
8.....	680.64	530.75	67.28	79.79	2.82
10.....	672.27	522.38	67.28	79.79	2.82
11.....	464.69	389.75	33.64	39.89	1.41
14.....	730.89	581.00	67.28	79.79	2.82
17.....	691.39	541.50	67.28	79.79	2.82
19.....	1,108.78	883.75	100.92	119.68	4.43
Other than public-school buildings.....	3,862.02	3,036.26	370.04	438.83	16.89
Secondary instruction.....	2,432.00	2,432.00			
Vocational instruction.....	2,432.00	2,432.00			
Wilmington High School.....	1,527.00	1,527.00			
Howard High School.....					
Other than public-school buildings.....	905.00	905.00			

**EXHIBIT XII.****Statement of Cost of Instructional Service, Wilmington Public Continuation School, Fiscal Year 1919-20.**

	Total.	Salaries of teachers.	Text-books.	Other supplies used in instruction.
<b>Total.....</b>	<b>\$4,636.77</b>	<b>\$4,563.23</b>	<b>\$33.64</b>	<b>\$39.90</b>
Part-time school (in shops), secondary instruction, vocational.....	4,375.73	4,375.73		
Extension school (day classes for adults), elementary instruction, Americanization.....	261.04	187.50	33.64	39.90

**EXHIBIT XIII.****Statement of Cost of Proprietary Service in Wilmington Public Schools—Operation of School Plant, Fiscal Year 1919-20.**

	Total.	Salaries of engineers, firemen, and janitors.	Fuel.	Gas and electricity.	Janitors' supplies.	Other expense of operation.
<b>TOTAL.....</b>	<b>\$54,349.56</b>	<b>\$31,403.40</b>	<b>\$15,742.77</b>	<b>\$3,471.09</b>	<b>\$987.44</b>	<b>\$2,744.86</b>
Day school:						
White schools.....	45,395.40	25,821.78	13,875.44	2,516.00	870.16	2,312.02
Colored schools.....	6,362.11	3,676.37	1,867.33	268.29	117.28	432.84
Night school:						
General.....	334.00	194.00		140.00		
Americanization.....	2,258.05	1,711.25		646.80		



**Statement of Cost of Proprietary Service in Wilmington Public Schools—  
Operation of School Plant, Fiscal Year 1919-20—Continued.**

	Total.	Salaries of engineers, firemen, and janitors.	Fuel.	Gas and electricity.	Janitors' supplies.	Other expense of operation.
Continuation school:						
Part time .....						
Extension .....						
Elementary school buildings .....	\$40,071.75	\$24,571.66	\$11,174.96	\$1,437.43	\$781.84	\$2,105.86
Undistributed .....	2,936.23		74.21		<sup>1</sup> 781.84	2,080.18
White schools .....	31,422.53	21,048.29	9,295.69	1,078.55		
No. 1. Day school .....	1,496.85	940.00	544.87	11.98		
Night school—Americaniza- tion .....	260.25	160.25		<sup>2</sup> 100.00		
2. Day school .....	1,375.74	960.00	412.04	3.70		
3. Day school .....	962.62	660.00	294.52	8.10		
4. Day school .....	1,010.22	720.00	279.28	10.94		
Night school—Americaniza- tion .....	376.80	170.00		<sup>2</sup> 206.80		
5. Day school .....	976.70	660.00	291.37	25.33		
6. Day school .....	830.21	600.00	219.54	10.67		
7. Day school .....	797.01	600.00	181.75	15.26		
8. Day school .....	1,013.20	720.00	280.27	12.93		
Night school— General .....	64.00	64.00				
Americanization .....	226.25	156.25		<sup>2</sup> 70.00		
9. Day school .....	1,377.36	960.00	371.28	46.08		
10. Day school .....	1,066.88	660.00	395.05	11.83		
Night school— General .....	77.00	67.00		<sup>2</sup> 10.00		
Americanization .....	155.25	135.25		<sup>2</sup> 20.00		
11. Day school .....	1,281.30	780.00	490.99	10.31		
Night school—Americaniza- tion .....	230.25	160.25		<sup>2</sup> 70.00		
12. Day school .....	1,043.29	660.00	378.56	4.73		
13. Day school .....	1,100.54	720.00	376.10	4.44		
14. Day school .....	903.01	720.00	173.08	9.93		
Night school—Americaniza- tion .....	177.75	157.75		<sup>2</sup> 20.00		
15. Day school .....	946.93	660.00	271.23	15.70		
17. Day school .....	959.62	660.00	285.94	13.68		
Night school—Americaniza- tion .....	185.25	155.25		<sup>2</sup> 30.00		
19. Day school .....	1,067.92	660.00	400.83	7.09		
Night school—Americaniza- tion .....	181.25	151.25		<sup>2</sup> 30.00		
20. Day school .....	1,159.74	720.00	439.74			
23. Day school .....	1,027.03	720.00	302.38	4.65		
24. Day school .....	1,993.26	1,220.00	606.83	166.43		
25. Day school .....	1,627.47	1,122.58	476.57	28.32		
26. Day school .....	814.11	600.00	214.11			
27. Day school .....	871.41	600.00	271.41			
28. Day school .....	2,143.08	1,393.45	686.38	63.25		
30. Day school .....	1,642.98	955.01	651.57	36.40		
Improved school lots .....						
Colored schools .....	5,712.99	3,523.37	1,805.06	358.88		25.68
No. 16. Day school .....	1,121.92	864.00	204.58	27.66		25.68
Night school—General .....	193.00	63.00		<sup>2</sup> 130.00		
18. Day school .....	505.62	256.37	249.25			
21. Day school .....	978.26	660.00	309.30	8.96		
22. Day school .....	1,322.28	720.00	414.83	187.45		
29. Day school .....	1,591.91	960.00	627.10	4.81		
High school buildings .....	113,812.81	6,366.74	4,567.81	2,033.66	205.60	639.00
Undistributed .....	520.04					520.04
White schools— Wilmington High— Day school .....	12,969.10	6,150.74	4,516.67	<sup>1</sup> 1,994.25	<sup>1</sup> 205.60	<sup>1</sup> 101.84
Night school .....						
Colored schools— Howard High— Day school .....	323.67	216.00	51.14	39.41		17.12
Night school .....						
Other than public school buildings: Night school—Americanization .....	465.00	465.00				

<sup>1</sup> Undistributed as to night school or other activities.

<sup>2</sup> Arbitrarily distributed as applicable to night school.

## EXHIBIT XIV.

Statement of Cost of Proprietary Service in Wilmington Public Schools—  
Upkeep of School Buildings, Fiscal Year 1919-20.

Schools.	Total.	Undis- tributed labor.	Repairs to buildings, grounds, and general equip- ment.	Repair and re- placement of heat, light, plumbing equip- ment.	Repair and replace- ment of furni- ture.	Undis- tributed materials (shop stores).	Other expense of upkeep.
Total.....	\$46,863.88	\$1,425.00	\$20,287.52	\$18,248.21	\$2,092.82	\$1,949.00	\$2,861.33
Elementary school buildings.	35,202.84	1,140.00	16,204.47	12,294.00	1,645.59	1,949.00	1,969.78
Undistributed.....	9,154.37	1,140.00	2,963.48	610.91	552.40	1,949.00	1,938.58
White schools.....	24,375.53		12,591.69	10,806.21	946.43		31.20
Building No. 1.....	1,108.75		883.53	160.21	65.01		
2.....	87.42		27.55	59.87			
3.....	615.63		491.71	62.87	61.05		
4.....	1,679.41		466.61	1,188.45	24.35		
5.....	980.95		764.30	126.62	90.03		
6.....	800.88		685.28	111.90	3.70		
7.....	601.83		365.80	224.48	11.55		
8.....	497.40		220.78	170.38	106.24		
9.....	1,052.89		792.25	257.84	2.80		
10.....	878.10		467.18	348.12	62.80		
11.....	820.66		585.64	12.40	222.62		
12.....	60.15		6.00	35.25	18.90		
13.....	565.46		530.81	34.65			
14.....	903.94		700.83	179.11	24.00		
15.....	4,607.71		644.40	3,963.31			
17.....	1,315.27		893.05	452.22			
19.....	385.23		58.25	297.98	30.00		
20.....	1,120.85		888.70	232.15			
23.....	781.21		179.35	506.26	69.20		26.40
24.....	1,537.16		1,251.98	285.18			
25.....	1,194.90		359.71	713.41	121.78		
26.....	475.75		383.65	92.10			
27.....	253.40		84.85	139.75	28.80		
28.....	1,387.42		621.68	757.34	3.60		4.80
30.....	632.16		237.80	394.36			
Colored schools.....	1,672.94		649.30	876.88	146.76		
Building No. 16.....	387.59		163.88	175.46	48.25		
18.....	347.06		114.74	178.20	54.12		
21.....	290.60		274.53	16.07			
22.....	140.05			113.07	26.98		
29.....	507.64		96.15	394.08	17.41		
High-school buildings.....	11,661.04	285.00	4,083.05	5,954.21	447.23		891.55
Undistributed.....	1,801.32	285.00	740.86	152.72	138.09		484.65
White schools—Wil- mington High.....	9,762.83		3,301.22	5,757.63	297.08		406.90
Colored schools—Howard High.....	9,689.00		40.97	43.86	12.06		

## EXHIBIT XV.

Statement of Cost of Auxiliary Agencies and Other Activities of Wilmington  
Public Schools, Fiscal Year 1919-20.

	Total.	Salaries.	Supplies.	Other expense.
Total.....	\$4,301.60	\$3,716.66	\$537.95	\$46.99
Medical inspection of school children.....	3,104.61	2,566.66	537.95	
Contribution toward lunch-service expense.....	796.99	750.00		46.99
Home and school gardens.....	400.00	400.00		
Community use of school buildings <sup>1</sup> .....				

<sup>1</sup> No items of expense appeared charged to this account.

## EXHIBIT XVI.

## Statement of Cost of Fixed Charges of Wilmington Public Schools, Fiscal Year 1919-20.

Charges.	Total.
Real.....	\$18,002.50
Personal.....	17,002.50
On short term loans.....	
On mortgages.....	2,265.00
On bonds.....	14,737.50
Contribution to teachers' retirement fund.....	1,000.00

## EXHIBIT XVII.

## Statement of Cost of Capital Outlays of Wilmington Public Schools, Fiscal Year 1919-20.

Schools.	Total.	Land and improve- ments to land.	New buildings.	Alterations to old buildings. <sup>1</sup>	Heat, light, plumbing, and elec- trical equipment. <sup>1</sup>	Furni- ture. <sup>1</sup>
Total.....	\$54,470.19	\$981.50	\$5,651.77	\$37,848.37	\$970.90	\$9,017.65
Administration property.....	582.85					582.85
Elementary school property.....	29,812.77	981.50		37,848.37	970.90	12.00
Undistributed.....	23,730.62	981.50		22,252.74	496.38	
Alterations to buildings.....	22,749.12			22,252.74	496.38	
Let—12th and Orange Streets.....	700.00	700.00				
Let—30th and Washington Streets.....	281.50	281.50				
White schools.....	11,408.31			10,933.79	474.52	
Building No. 1.....	114.00				\$ 114.00	
Building No. 4.....	25.00				\$ 25.00	
Building No. 6.....	50.24				\$ 50.24	
Building No. 10.....	17.50				\$ 17.50	
Building No. 11.....	3,662.15			3,635.95	\$ 26.20	
Building No. 14.....	28.85				\$ 28.85	
Building No. 17.....	182.00				\$ 182.00	
Building No. 19.....	30.73				\$ 30.73	
Building No. 25.....	7,297.84			7,297.84		
Colored schools.....	4,673.84			4,661.84		12.00
Building No. 18.....	1,921.57			1,921.57		
Building No. 22.....	2,752.27			2,740.27		12.00
High school property.....	14,045.69		5,651.77			8,393.92
White schools—Wilmington High.....	14,045.69		5,651.77			8,393.92
Colored schools—Howard High. Property other than in school build- ings.....	28.88					28.88

<sup>1</sup> Not repairs or replacements.<sup>2</sup> Expenditures from Americanization funds.

**EXHIBIT XVIII.****Statement of Payment of Debt of Wilmington Public Schools, Fiscal Year 1919-20.**

	Total.	Payment of mortgages.	Payment of bonds.
Total.....	\$27,500	\$2,500	\$25,000
Undistributed.....			
Elementary school investment.....	7,500	2,500	5,000
High-school investment.....	20,000		20,000

**EXHIBIT XIX.****Enrollment in Private and Parochial Schools of Wilmington, Nov. 1, 1920.**

Schools.	Under 6 years.	6-14, inclusive.	15-18, inclusive.	Over 18 years.	Total.
Private schools:					
Friend's School.....		250	63	1	314
Tower Hill.....	34	194	25	1	254
Total private.....	34	444	88	2	568
Parochial schools:					
St. Joseph's.....	1	66	1		68
St. Peter's.....		200	16		216
St. Ann's.....		292	26		318
St. Elizabeth's.....	11	360	3		374
St. Hedwig's.....		845			845
St. Joseph's Day.....		31	2		33
St. Mary's.....		515	7		522
St. Patrick's.....	1	431	37		469
St. Paul's.....	13	758	38		809
St. Peter's Cathedral.....		249	11		260
Sacred Heart.....	2	125	2		129
St. Stanislaus.....	2	268			270
St. Thomas.....	3	433	12		448
Salesianum.....		80	59		139
Ursuline Academy.....		139	26		165
Total parochial.....	33	4,792	240		5,065
Grand total.....	67	5,236	328	2	5,633

# EXHIBIT XX.

Original Capacity of 30 Elementary School Buildings; Net Enrollment for 1910-1920—Per cent of Increase in Enrollment 1910-1920—Excess of Pupils over Seating Capacity—Additional Capacity Needed—Number of Special Facilities Available—Number of Teachers, Principals, and Assistants.

Name of school.	Regular facilities.										Special facilities.										Teaching force.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Date of erection.	Grades.	Capacity of school on basis of 40 pupils per class.	1909-10	1919-20	Net enrollment.			Regular classrooms now available.	Total classrooms required for present enrollment. <sup>1</sup>	Excess of classrooms required over those available.	Built for purpose.	Classrooms used as aud.	Classrooms used as gym.	Manual training.	Other.	Cooking room.	Sewing room.	Drawing room.	Music room.	Science laboratories.	Library.	Principal's office.	Teachers' room.	Regular teachers.	Cooking.	Sewing.	Manual training.	Art.	Drawing.	Music.	Science.	Physical training.	Principal.	Assistant principal.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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<sup>1</sup> This does not include the small rooms over the front door now used as classrooms, but too small for regular classrooms.  
<sup>2</sup> Decrease.

## EXHIBIT XXI.

From a Report of the Commerce Club of Toledo, Ohio.<sup>1</sup>*The work-study-play plan in some cities.*

City and State.	Estimated population in 1918.	Number of schools operating under plan.	Attitude of superintendent to plan.	Special remarks.
Winnetka, Ill.....	5,000	All on modified form..	Favorable.....	Effects saving in capital investment, enriches school program, and makes possible the employment of competent, trained departmental teachers.
Detroit, Mich.....	850,000	16 this year, 30 next year; modified form.	.....do.....	Adjusts plans to facilities of particular buildings. Teachers enthusiastic about plan. Increases seating capacity of building from 16 to 40 per cent.
Kalamazoo, Mich..	50,000	All on modified form..	.....do.....	Used in third to sixth grades, inclusive. Junior and senior high schools, all on departmentalized plan.
Minneapolis, Minn..	416,000	2 elementary, as emergency measure.	Prefers traditional plan.	
Bayonne, N. J.....	70,000	2 elementary in modified form, as emergency measure.	.....do.....	
Newark, N. J.....	450,000	9.....	Favorable.....	Has decided advantages over traditional plan which more than offset disadvantages. Teachers having had 1 year of successful experience in these schools receive a bonus of 5 per cent.
New Brunswick, N. J.	38,000	1 in modified form; platoon plan.	.....do.....	Accommodates 16 sections of pupils to space usually assigned to 13 groups, or increases capacity 23 per cent.
Passaic, N. J.....	70,000	2.....	.....do.....	Average per capita annual cost reduced to 5-hour basis for all schools is \$42.51 for traditional schools as compared with \$32.73 for work-study-play plan schools.
Schenectady, N. Y.	108,000	1 in greatly modified form.	Favors traditional plan.	
New York City, N. Y.		None.....	.....do.....	Was tried out under Mayor Mitchell's administration of New York City. School conditions were then made a political issue and present city administration elected on a platform opposed to work-study-play plan.
Troy, N. Y.....	80,000	1 in modified form....	Favorable.....	Satisfied with plan. Children get greater advantages than with old type of school.
Rochester, N. Y....	300,000	3 in modified form....	Favors in a conservative way.	Work has been successful to date. Present indications are that it will be extended rather than reduced.
New Castle, Pa....	36,000	4.....	Favorable.....	Considered a marked improvement over traditional plan. Success depends upon the securing of teachers properly trained to do the special teaching which this type of school demands.
Pittsburgh, Pa.....	504,000	6.....	.....do.....	Will extend the use of the plan.
Sewickley, Pa.....	6,000	All for 8 years.....	.....do.....	Has decided advantages over traditional plan.
Swarthmore, Pa....	3,000	All for 8 years; modified form.	.....do.....	Very complete school equipment and program; per pupil cost \$97.87.
El Paso, Tex.....	77,000	Tried out by previous superintendents, in modified form; in none this year.	.....do.....	Worked fairly well in 3 schools; is not regarded with enthusiasm by the general body of teachers.

<sup>1</sup> Reprinted from School

DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1921, No. 2

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# SURVEY OF THE SCHOOLS OF WILMINGTON, DELAWARE

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## PART II

- I. THE ELEMENTARY COURSES
- II. SECONDARY EDUCATION
- III. SPECIAL DEPARTMENTS AND SUBJECTS



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1921

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## INTRODUCTION.

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The study of the public-school system of Wilmington, Del., of which this bulletin is a part, was made by the United States Commissioner of Education upon invitation of a committee of 30 citizens of Wilmington appointed by the board of education, by the city council, and by the mayor of the city, and empowered to arrange for such a study.

In the introduction to Part I of this report, printed under separate cover, will be found a full statement of the conditions under which this survey was undertaken, its scope, and the personnel of the commission appointed to make the study.



# **SURVEY OF THE SCHOOLS OF WILMINGTON, DELAWARE.**

## **PART II.**

---

### **Chapter I.**

#### **COMMENT AND SUGGESTIONS ON THE SEPARATE ELEMENTARY COURSES.**

New courses and revisions of old courses have been prepared by the superintendent on the various subjects taught and issued only in September of the current year, less than two months before this survey was made. Some of these courses, like those on nature study and physical training, are entirely new, these subjects having never before found a place in the curriculum; others embody important desirable changes in the courses in the various studies which have long been used in the schools. Under these conditions, the courses on paper represent to a considerable extent what it is proposed to do, and not what actually has been and is done in the schools. In short, some of these courses are, in important respects, much better than the actual teaching observed. To carry them out, teachers will need more help than they now receive from the superintendent, the assistant superintendent, the supervisors of special branches, like drawing, music, etc., and from the principals, as more fully explained elsewhere in this survey. It will require more frequent teachers' meetings than are now held. In short, more effective supervision of the instruction is the prime requisite.

The following comments, and accounts of lessons observed, showing both points of excellence and defects, are offered in the hope that they may aid the teachers and the supervising staff to carry into practical effect the good features of these courses, and the additions to and modifications of them suggested below.

#### **INTRODUCTORY REMARKS.**

Judgment of any act implies a standard. Any teaching act is judged to be good or bad, right or wrong, profitable to those taught or unprofitable, according as it is measured by some standard of pedagogical practice believed to be authoritative. Such a standard must not only claim to be scientifically grounded, but it must have

proved also its effectiveness in accomplishing the ends that schools are conducted for in this day and age.

It is believed that the standards used in judging certain elementary school practices observed in the schools of Wilmington are not only thus grounded, but that they have been demonstrated in the best schools of the country as practically effective in accomplishing the great social ends conceived to be the aims for the education of the young in our democracy.

1. Education is something more than teaching. When Wilmington shall have for all of its little children properly equipped kindergartens under trained directors; when it shall have playgrounds for all, under trained supervision; when it shall have facilities for carrying out varied and full courses in industrial arts, household arts, manual training, and other prevocational activities; and shall have provided special classes for the feeble-minded, the exceptionally dull, the exceptionally bright, and the incorrigible, then will Wilmington be considered as providing more adequate educational facilities for its young citizens, so far as mere instruction is concerned.

2. Teaching is something more than instructing. Teaching has at least two other ends, of even greater importance than knowledge, to the accomplishment of which instruction for the sake of knowledge is only a means; these ends are mental development and training, resulting in power and skill. Until supervisors, principals, and others placed in judgment of the success of teachers cease to measure the product of teaching effort chiefly by what pupils know and can express in a formal test or examination, the knowledge aim will dominate; teachers will prepare pupils for such test or examination. The standard set by supervision determines generally the methods and aims of the teacher.

3. Knowledge is something more than information, something more than facts fixed in the memory by repetition. Knowledge is the product or result of real experience occasioned by the necessity of solving some problem of more or less vital concern to the individual being educated. The more teachers grow in their appreciation of this truth, and by study and experiment adjust their teaching in accordance with it, the more vital will such teaching become, and the more successful will the schools be in turning out young people able to think.

4. Training young people of a democracy to think involves something more than the general aim of self-realization, great as this is. Psychologists have pointed out to us the principal form or modes of thinking that characterize successful men and women, and pedagogists are helping us to shape our school practices so that these habits of thinking will be developed. (See McMurry's "Elementary School Standards.")

In the light of these four general considerations the following comments and suggestions are offered: Work observed has been pronounced good that seemed to have real educational value, and such work was found in many schoolrooms; work was seen also that did not meet the modern standard; it showed the dominating influence of traditional practice, of outgrown aims and methods. This would probably be found true to some extent of any school system. Judgment on a system as a whole is determined not by exceptional conditions but by the predominating conditions found. The ideal condition would be to find every teaching act so planned and executed as to contribute effectively to the accomplishment of the great end for which all this educational work is being carried on. While this ideal would be difficult of realization, still that school system, that part of the curriculum, that teacher's work, that class exercise must be judged the best which can show the most of such teaching acts.

### 1. LANGUAGE AND GRAMMAR IN ELEMENTARY GRADES.

In educational practice there have come to be recognized three sorts of language work which, in adapted form, should be afforded children in all grades:

1. Constructive language work, or the use of language to express thought. This is commonly called composition, oral and written.
2. Technical language work, which aims at grammatical correctness by bringing language expression up to approved standards.
3. Interpretive language work, which aims at growth of vocabulary, at appreciation of the power of words to express thought, and an interest in word selection.

Of these, it must be conceded that composition is the most important, the other two being auxiliary to it. It must be understood that by composition are meant all attempts at thought expression from the first effort of the little child to the finished oral or written production of the trained student; thought expression out of, as well as in, the special class called the language class, every exercise being an exercise in English.

Briefly summarized, then, successful language teaching requires of the teacher:

First, that interesting and profitable thought material be brought to the attention of the pupil, and thinking regarding this material stimulated.

Second, that the teacher find or devise occasion for the natural, free expression by pupils of their thought upon the subject thus caused to engage their attention, the best motive for such expression on the part of any pupil being the natural one of desire to communicate to somebody something he is interested in.

Third, that the teacher note during this free, spontaneous language performance the language needs, both of a grammatical and an interpretive sort, of those performing and proceed at the proper time to minister to those needs, either by drills or instruction. Freedom and fluency are the essentials which primary teachers should cultivate, and later there may be added to these coherence, accuracy, logical order, and felicity in expression.

Fourth, that the natural way to learn to speak a language, either native or foreign, is to acquire fluency first and complete grammatical correctness afterwards by pruning criticism and imitation of correct models. To try to secure grammatical correctness first involves a degree of criticism that checks spontaneity and makes fluency difficult or impossible.

It is believed that the four points named above epitomize in the rough the pedagogy of successful oral language teaching everywhere. In due time written language should follow oral language, practice being guided by the same general principles.

The three sorts of language work, as observed in the Wilmington schools, are here commented upon in the light of the foregoing general statements.

#### OBSERVATIONS OF ORAL COMPOSITION.

In the observation of over 30 language classes in all grades from 1A to 6A, very little free, spontaneous oral thought expression was heard; and in other subjects, such as history, arithmetic, and geography, the reciting of memorized words by pupils was far more commonly heard than the expression of what had become their own thought upon the subject. In certain schools these conditions seemed more marked than in others. When, as was done on several occasions, questions were put by the observer designed to bring out the children's own expression of their thoughts, they seemed so afraid of not saying things correctly that they said nothing at all, or spoke haltingly and very formally. In their efforts for correct expression many teachers and principals have inhibited, through constant interruption and criticism, freedom of speech. It seems reasonable to urge that children be allowed to talk like children when there is evidence of earnestness of purpose, and that guidance to better standards be sympathetic and patient, and not repressive, so as to check fluency and freedom as it now does. In several of the schools where repression was most marked, to give a wrong verb or pronoun, or a "then," or a "why," or an "and" in a free, really extemporaneous talk seemed a far more serious offense than to have nothing to say. The remedy consists in providing far more oral exercises, properly motivated, and correcting only a few of the



glaring errors in each. Children outgrow many mistakes without having them corrected, if given abundant practice and required to do their best.

Although the quiet interpolation by the teacher of the correct form in pronunciation or grammar may not disturb some children, there are others whose flow of thought is seriously interrupted by it.

#### REPRESSIVE CRITICISM ILLUSTRATED.

The following incident is illustrative of a typical sort of thing all too frequently observed:

A picture in the Aldine language book was assigned the class for observation, and the children were given a few moments to think of a story suggested by this picture. A boy was selected to tell his story. He came to the front with a bright face and an animated manner, looking and acting as if he had something to say, and really wanted to say it. He made a good start, and was talking freely and naturally, when the teacher interrupted him with, "Oh! I have heard something I don't like at all. You have put in two *ands* where they were not needed. Begin again." The boy, with dampened ardor, did as directed, but with lessened spontaneity; he controlled his *ands* but slipped on a verb. was corrected again, lost all his courage, as his countenance showed, was unable to rescue himself, and was sent to his seat with the undeserved reprimand, "You didn't study the picture very well." Such repressive methods of dealing with children who were attempting to express their thoughts in oral language were frequently observed; sometimes the interruption came from the principal, who was witnessing the recitation with the observer.

Believing that the formation of the *habit of success* and not the *habit of failure* should be the object of endeavor in all our dealings with young children; that the child who is making an honest effort to do the thing assigned him should not be allowed to fail utterly, the observer frequently found it difficult to resist effort to ameliorate in some way the inevitable consequence to character formation of this treatment.

The failure of teachers to avail themselves of the timely, live thought material afforded for oral composition by the current experiences of children, was especially observed.

#### LIVE THOUGHT MATERIAL SHOULD BE USED.

During the day of visitation two events of interest to children occurred. The first of these was Halloween, one of the most enjoyable days of the year for children; the spirit of fun is abroad, and the images of sprites and fairies and other fabled folk stir the fancy and

stimulate expression. For a week beforehand, the schoolrooms were filled with Halloween trimmings, the blackboards showed appropriate pictures, and the handwork was expressive of the Halloween thought. Throughout these days the observer watched for the use by teachers of these richly suggestive motives for good language work, but in vain. It was hoped that on the very eve of the day there might be heard a conversation between teacher and children on the right kind of fun to have on Halloween, and the difference between innocent and harmful mischief. Nothing was seen or heard but the oft-repeated dramatization, or the language game, or the quotations, all good in their place, but things that could have given way for a while to the timely motive for spontaneous, enthusiastic oral expression.

Again, on the Monday following Halloween, it was hoped that teachers, especially in lower grades, would be found using the events of this frolicsome season for a sort of happy-experience meeting with their children, and that free, natural conversation would be heard. A number of teachers were finally questioned as to whether or not they had at some point in the day's program had such an exercise, but they had evidently not thought of it. One made the reply: "We were about completing work on the use of quotation marks in some fables we had been studying, and I wanted to clinch that, so had no time to let them tell about Halloween experiences." Thus the psychological moment for utilizing an opportunity for real thought expression was lost for the sake of impressing a matter of form that could just as appropriately have been given a day or a week later.

The second event referred to was election day, a holiday in the Wilmington schools. On the day following, it was again hoped that, in the upper elementary grades at least, the formal grind would be set aside for a discussion of the significance of the great national event. A teacher of a fifth grade was asked if she intended to find out what her children knew about the importance of the day just past, of the celebration that had taken place, and anything else pertaining to it which the pupils might think of importance. "No," said she, "we didn't take time in school for such things, but at recess, I tell you, the boys had a lively time over it."

What better use of the school time can be found for the training of boys and girls than to carry on in a proper way the discussion of such questions as concern the civic life?

#### EXCEPTIONS TO FORMAL TEACHING NOTED.

Notable exceptions were observed to the formality described above, and there were admirable examples of good language teaching.

1. In a 2B language class there was heard free conversation, evidently not rehearsed, upon the subject of pets owned by the different

children. The children were, as usual, eager to tell what they knew, and were allowed to pour out their thought and feeling in free, childish, untrammelled fashion, the pity of it all being that there were so many children that all could not possibly deliver themselves of their stories.

2. In a 6B geography class, in a school largely Italian, the teacher had wisely motivated free expression by calling for reports of first-hand knowledge of Italy (and several were there who had such knowledge), or reports of what their parents had told them about their native land. Whatever its value geographically, this surely met the conditions named in point two of the introductory remarks concerning effective language teaching. It was motivated by the desire to communicate. More than that, whether she was fully aware of it or not, the teacher was inculcating habits of thinking of value: (a) Independence; they were not reciting memorized words, and each told his own story; (b) effective organization of thought, for these pupils were teaching, and felt something of the need of making unknown things clear to their listeners; (c) purpose, for out of this free discussion questions arose which only a careful reading of the book, or further discussion with father or mother, would settle, and of this the assignment for the next day wisely availed itself.

The two exercises described above illustrate types for oral composition which draw their thought material from experience. Much the larger portion, however, of the oral, as well as written, composition draws its thought material from story or other form of the organized expression of the experience of others, that is, it is reproduction. Under this heading may be classed the usual recitation of subject matter assigned in history, geography, hygiene, etc. As is usually the case, these school subjects were not utilized as well as they might be to develop power in oral composition. Some good recitations were heard, and others that had less value from the language standpoint. The former were the pupils' own expression of assimilated thought, and the latter the repetition of memorized words and not necessarily the reproduction of thought. This latter type of work is worthless and has long since been eliminated from good schools.

Some excellent recitals of memorized poetry and of short "gems of thought" were heard in the Wilmington schools. Such memorizing of what is literary art is a different thing from the memorizing of the language of textbooks and has high educational value in cultivating literary taste. Children have an intuitive love of rhythm, they enjoy poetry, and their appreciation of the beautiful in literature is developed by such memorization; but it must be remembered that this memorization of poetry and good prose is not oral composition, but, besides its chief aim of developing a love for literature,

it is also a means to that end, in furnishing ideals and in helping to form right speech habits.

Dramatization was frequently observed as a part of the oral language program. The real value of a dramatization, like that of other memorized production, can not be determined from the finished results. Its value depends upon the way it is worked out. If this is done by the children, if the situations and properties express their conception, and the language is wrought out by them and, though guided, is not imposed and memorized, then the dramatization has an educational experience of value. But when especially selected children are alone accorded the privilege of taking part, as is known to have been the fact in some cases, such performances are not only a worthless show, but a violation of the democratic spirit which our schools should in all ways exemplify. This is a distinction which many of the teachers do not seem to appreciate and which should be discussed in teachers' meetings and clearly fixed in their minds.

#### OBSERVATIONS ON WRITTEN COMPOSITION.

What has been said about lack of freedom in oral composition was found to be true also of written composition. As has been said, it is expected that oral composition will have the right of way in the lower grades, and that oral recitation in the pupil's own language of assimilated thought from reading will always be an important exercise in all grades. But as soon as pupils have acquired considerable ability to write, then written expression should follow oral, and should be increasingly emphasized from the fifth grade up, the demands in this form of expression being graduated and adapted to the growing powers of pupils.

Inquiry into the practices prescribed and followed in Wilmington showed that there is little attempt at written composition before the fourth grade. This is in the main right, with the exception of letter writing in the third grade, provided great emphasis is laid in the first three years on oral language, and freedom, spontaneity, and fluency are secured. But such fluency and freedom are not secured in Wilmington except by a few teachers. In the fourth grade, children are sent to the blackboard to write one or more sentences upon some assigned subject, or to answer a question upon some subject taken from the work of the day, the other members of the class observing. Criticism and correction follow the writing. In the fifth grade similar exercises are given. This sort of thing undoubtedly cultivates the habit of self-criticism and to that extent is good, but there is not nearly enough writing done to secure ease and skill in this form of thought expression.

Letter writing is not undertaken until the fifth grade. The postponement of this most important form of written composition seems a serious defect in the course. This sort of composition is motivated rightly, as it deals with matters of intimate, personal concern and furnishes the best sort of an exercise in written thought expression. More than this, it is of immediate practical use to the boys and girls. Not only is letter writing the one form of composition which every intelligent member of society is sure to be called upon to do, but some skill in it is needed by many at a comparatively early age. It is quite necessary to the illiterate or the foreign-speaking home that letter writing, with some attention to approved form, be taught as soon as the child has gained considerable facility in sentence making and has sufficient control of the hand to write legibly. This may be begun in the third grade, where children can be taught to write simple letters, the technique at this stage being a matter of observation and imitation. Children from the homes of the educated are not affected by the same need, but it is very probable that the parents of such children induct them into letter writing before they reach the fifth grade, in spite of the restrictions of the school course. This the illiterate or foreign parent can not do. When such meager exercises in written composition as are here cited are considered, one wonders why from the first grade so much of children's energies throughout the Wilmington schools is put upon practice in penmanship, the very first exercise of the day being frequently that. Granted that in grades 1 and 2 undirected effort may undo what the teacher has done for correct habit formation in writing, still children in the second grade can copy sentences which they have composed and which the teacher has written, in good form; and third-grade pupils can advance a step further and write original sentences, provided that preliminary help has been given with spelling and other difficulties of a formal sort. The emphasis, however, in grades 1 and 2, and also in grade 3, outside of letter writing in the latter grade, should be wholly upon oral language training.

#### LACK OF AN APPEALING SUBJECT MATTER.

The curriculum, in both oral and written composition, seems to be operated with reference to the distant future, which accounts for the lack of subject matter that appeals now to children, and, therefore, affects present conduct; and it accounts also for the postponement of certain expression arts, which must necessarily in their first attempts be imperfectly done, but which children can learn to do well only by doing.

One fine piece of properly motivated letter writing is worthy of mention as exemplifying the sort of thing that should prevail in all

the schools. A letter was seen which was reported to be the result of the composite effort of the class. It was addressed in proper form to the manager of a manufacturing firm in Wilmington, and said:

Our class is studying about the manufactures of Wilmington. We would like to know where the ——— and ——— you use come from. Do you manufacture anything besides ———? Thanking you for any information you may give, we are

Sincerely yours,

Pupils of ———.

A polite acknowledgment was received, asking that a day be named for the visit, when the writer would arrange to be present in person or "send a well-informed official of his company."

This necessitated another letter from the school. They had the pleasure of the visit on the day named.

#### COMPOSITION IN THE SEVENTH AND EIGHTH GRADES.

In grades 7 and 8 there is more freedom and spontaneity both in oral and in written composition than in the grades below. This is partly due to more skillful teaching and partly to the fact that pupils have acquired a degree of grammatical correctness which makes constant corrections less necessary. Yet, even in these grades, pupils do not attain fluency and freedom, either in oral or in written language. The ideal in the minds of the teachers also in these grades is to secure grammatical correctness first, which leads to excessive corrections of errors that check fluency and spontaneity.

The so-called socialized recitation, in which the pupils do nearly all the talking, is made use of to some extent in grades 5 and 6, and to a considerable extent in grades 7 and 8. This not only develops command of language, and constitutes the best training in oral language found in the schools, but it also requires more thought on the part of the pupils and a greater mastery of the material of the lesson. This is a feature of the Wilmington schools to be highly commended and which ought to be much extended.

Excessive correction of errors either in oral or in written language checks spontaneity, fluency, and freedom, both of thought and of language. This, as already pointed out, is a conspicuous fault of the language teaching in the Wilmington schools. Grammatical correctness on the one hand, and fluency and freedom on the other, can not be secured by the same kind of exercise. The solution of the difficulty lies in having two kinds of language exercises, the one having for its chief aim grammatical correctness and the other having for its chief, but not exclusive aim, clearness, fluency, and freedom of thought and expression. In oral language work, the former would consist of drill in correct pronunciation; drill in correct forms habitually used incorrectly by the pupil; drill on correct use of words in his vocabu-

lary which he frequently uses incorrectly; correction of slang expressions in his vocabulary, etc. In written language work the exercises would consist of dictation of carefully selected sentences to teach capitalization, punctuation, certain conventional forms (as in letter writing), the use of quotation marks, contractions, abbreviations in common use, certain grammatical forms like the formation of certain plurals and the possessive forms of nouns. These matters of technical language work should be taken up, point by point, and first explained and then drilled upon by dictating carefully selected sentences until the pupil not only comprehends them but also forms the habit of writing them correctly. Such dictation exercises also provide valuable drill in spelling, more valuable than the writing of separate words, as the meaning becomes associated with the words in the process.

This may be called technical language work, the purpose of which, as stated, is to secure grammatical correctness.

The second kind is composition, whose chief aim is freedom, fluency, and clearness in expression. The two exercises should be kept separate, either in the same recitation, or be given in separate recitations. The latter is generally preferable.

If the technical work is done well there is not much need for correction of errors of grammar in composition. Children will then outgrow most of their mistakes in composition without having them corrected, provided they are held up to their best and are given a great deal of exercise in composition.

So far as the Wilmington schools are concerned, there is not nearly enough composition writing above the fifth grade, and there should be somewhat more in the fifth. In these upper grades one composition a week, outside of letter-written work connected with the recitations in other studies, is the rule. This was the invariable answer of teachers, when questioned, in these grades. This is not nearly enough training to secure either grammatical correctness or fluency, and the results attained illustrate this fact.

#### SUGGESTIONS FOR TEACHERS.

The following suggestions may be serviceable to teachers:

Written composition in these grammar grades should be a daily exercise. Time should be found for it.

The exercise should usually be reasonably short. The subjects should, with occasional exceptions, be taken from the regular studies, such as geography, history, literature, hygiene, and certain parts of arithmetic, like taxes, stocks, and bonds. These subjects should be assigned after and not before the topics have been taught in class.

The teaching, if good, has interested the pupils in the subject and made the content clear. In this way the daily writing of compositions reinforces the instruction of the regular studies, and takes partly the place of drill and reviews.

To secure fluency, older children must be limited in time, and not be allowed to dawdle. Such compositions should be corrected mainly in class, usually within the period within which they are written, by hearing them read. They should be criticized in the light of their chief aims—clearness, fluency, fullness, interest, etc., and only mildly for errors of grammar, except such as have become a fixed habit of the pupil.

It is not an uncommon thing to insist excessively on neatness, correct margin, etc. The manuscripts of newspaper editors and authors of books who write what other people want to read are not noted for the degree of neatness we insist upon in school. There is a reasonable degree of neatness that can be secured in school without its interfering with fluency of thought and writing. Fussiness in this respect should be avoided.

The language work is one of the weak features of the Wilmington schools that needs radical change. It is too stiff and formal in all the grades, especially in the first five. The teachers are misled by their very conscientiousness. They are so anxious to secure grammatical correctness that they correct every mistake the child makes, and thus makes spontaneity, fluency, and freedom difficult, and generally impossible.

Good written composition in the upper grades is possible only when there is thorough training in oral language during the early years. The course of study recognizes this fact, and the emphasis is laid on oral language in the first four grades; but, as stated, it is so formal that it largely defeats its own end. This is evident at once to the observer, and it is illustrated by the fact that simple matters of punctuation, which ought to be mastered early, are emphasized in the course for the seventh grade.

#### GRAMMAR.

Practical grammar is taught in all the grades; that is, children are drilled in the correct grammatical forms which they need; but technical grammar, the teaching of the parts of speech, is begun in the sixth grade. In the best schools of the country technical grammar, even of the elementary sort, is not begun until the seventh. It is recommended that it be confined in Wilmington to the seventh and eighth, and that composition take its place in the sixth. It is further recommended that in the seventh and eighth only such phases of grammar be taught as will actually aid the children in learning to



speak and write correctly, and that the rest be relegated to the high school.

The new course of study, which is a good one, eliminates most of the technical parts which are of use only as a basis for the study of foreign languages in the high school, and should consequently be taught in the high school. Such topics as the subjunctive mood with its tenses, and complex and compound sentences, with their coordinate and subordinate clauses are beyond the grasp of most children of the elementary schools, and are of practical use only in the teaching of the subjunctive mood and sequence of tenses in foreign languages. The course of study eliminates the subjunctive mood, but retains complex and compound sentences, the discussion of which occupies a large place in grades 7 and 8. This, as stated, had better be relegated to the high school. The simple sentence, its subject and predicate and their modifiers, has practical value and is easy to comprehend. There should be thorough drill on these. The full conjugation of the verb is properly left for the high school. Drill on the principal parts of verbs in common use is emphasized, is skillfully done and practically applied.

#### METHODS OF TEACHING GRAMMAR GOOD.

The teaching of technical grammar throughout the grades is good, some of it exceptionally so.

The lessons observed, both in the sixth grade and in the seventh and eighth, showed skill and ability in making technical grammar function in children's language. In the grades below the seventh, effective use is made of language games to fix the correct forms of speech. This device is worked out in a valuable little book which teachers have on their desks. Much of this work observed was admirably done with the real game spirit.

#### INTERPRETIVE LANGUAGE WORK.

Little recognition of this form of language need was observed. The studies especially contributing to vocabulary growth are literature and spelling. It is only when teachers clearly recognize this kind of language work that it is given due attention. Much of the work done in spelling is only justified by the contribution it may make to a child's power of expressing and interpreting, and this effect does not come from the mere spelling of word lists, but by discussion of meaning and by full and varied and continued application of the words studied. One spelling exercise observed seems especially deserving of mention, as it not only was effective in its method for mastery of form, but also was an exercise in vocabulary growth.

The word "perilous" was written on the board by the teacher. Pupils were required to formulate sentences containing this word; the acceptable sentence being one that clearly showed that the pupil understood the word. "It was a perilous trip" was rejected. "Going across the Sahara Desert is a perilous trip" was accepted. "Ridicule" was another word. "Do not ridicule people" was rejected. "When Columbus walked the streets the boys would ridicule him" was accepted.

After each word had been used in a variety of sentences it was erased, then pronounced and spelled by the pupil with careful attention to syllabication, and written with others in a column for further reference and review.

#### CONCLUSIONS.

Judged by modern standards, the language teaching in the elementary grades fails in the following respects:

1. The thought material for expression is not sufficiently drawn from the field of experience, thus really exercising thought powers in shaping expression; and in the case of written composition it is not sufficiently taken from the regular studies. The opportunities to make school a part of life are not sufficiently used.

2. The methods employed for gaining correctness of form are not conducive to that freedom of expression which should be the first aim in language teaching. There must be spontaneity and fluency first and correctness afterwards. This is the natural way of learning a language.

3. Formal technical grammar should not be begun until the seventh year of school. Composition should be substituted for it in grade 6, where it is now begun.

4. The course is too uniform to meet the needs of a varied social situation. In spite of the fact that a large proportion of the children of some schools hear only a foreign language in the homes, while few in others hear anything but English, all are expected to spend approximately the same time in the study of English. There should be adjustment to different conditions.

5. There is not nearly enough composition writing from the fifth grade to the eighth, inclusive. Only one composition per week is the custom.

6. Daily short compositions, on subjects taken mainly from the regular studies, after they have been taught, rather than long formal compositions once a week, largely on subjects not taken from their regular studies, is a desirable change. Occasionally, for special purposes, long compositions are desirable.

7. Two lines of language work, kept quite separate and distinct, the one, consisting of dictation of sentences to teach capitalization,

punctuation, etc., and the other of composition, whose chief aim should be to develop clearness, fluency, and freedom in writing, are recommended.

8. In grammar it is recommended that the teaching of complex and compound sentences be relegated to the high school.

## 2. NATURE STUDY.

This subject was introduced into the schools of Wilmington only at the beginning of the current school year in September. The teachers had had only a little over a month before this survey was made to organize the work, and the teaching was therefore, not unnaturally, crude in method and rather indefinite in aim. The chief defect in the teaching observed was the fact that many teachers did not realize that information concerning plant and animal life, conveyed to children by means of oral instruction or reading, is not nature study, but that the children should actually observe nature—its phenomena and processes. In short, nature study is nature studied, not secondhand information about it.

Many of the lessons observed indicated that the children tried to recall what they had been told rather than what they had observed. But there were also many exceptions, where the teachers had specimens and the children got their knowledge of facts by direct observation. All the teachers are hampered by the fact that the study is so new in the schools that there has been too little time to provide the necessary nature material for study by direct observation.

However, the collection of nature material has begun, and in some schools very commendable exhibits were seen, comment upon which never failed to elicit evidences of the keenest interest on the part of the pupils. While the collection of this material is one of the best means to the stimulation of interest in natural phenomena, still there is another side to this matter to which attention of administrators needs to be called. It has long been the custom in high schools to supply needed material for science work; the elementary schools are deserving of the same help. While the excursion plan should be encouraged, the supplying of proper material for the carrying out of the course should not be left to the uncertain efforts of children or be entirely expected of the teachers, as is now the case.

## OBSERVATIONS ON TEACHING.

The following observations on the actual teaching may be helpful to the teachers and supervisor in organizing effectively this new line of work, and in eliminating defects of method as well as in clarifying the aim in their own thinking. The teachers had been given an outline to follow but had had either one meeting or none at all

with the supervisor. In consequence, they were unfamiliar with both subject matter and the methods to be employed. The subjects taken up were leaves, milkweed pods, and the parts of the flower; the cricket, caterpillar, and the frog and toad. Little was done in the first grade, the names and colors of two or three flowers only being expected, according to one teacher. Two of the exercises observed were on leaves. In each case the teacher had specimens of the leaves—different kinds of maple in the one case, and a maple, oak, and poplar in the other; but the children had none, and the study of these was therefore superficial. The children were urged to observe the leaves on the trees on their way home, however, and to bring leaves of different kinds to school. In order to connect it with their language work they were taught a poem about leaves, Susan Coolidge's "How the Leaves Came Down."

In the lesson on the milkweed pod also the teacher had a specimen but the children had none. In consequence, the facts that should have been worked out from the children's observation—the shape of the pod, the arrangement of the seeds in it, the flying apparatus which the seeds have and its purpose—were not developed, and the teacher resorted to telling the children what they should have learned through her direction of their observation. The fact that teaching by this method was new to nearly all the teachers was quite apparent. When in the course of an exercise a point was touched upon that the children did not already know, the teacher did not work it out from observation then and there, as she should have done, but either told them about it or dropped the matter, saying, "Let us recall some of the other things we have learned."

The lesson on the parts of a flower was poor because neither children nor teacher had any kind of a flower to examine. The teacher had drawn a flower on the board showing the facts, and the exercise was little more than a memory drill without any observation of the facts in question.

In the lessons on the grasshopper and cricket, the caterpillar and butterfly, and the frog and toad, the teachers were clearly on unfamiliar ground, both as to knowledge of the subject and of method, and the exercises were quite poor. The nature-study outline suggested the making of cricket "cages." These had been made in many rooms, and the children had brought crickets and caterpillars and put them in the cages for observation. According to the outline, the children were to watch the crickets eat, hear the male sing, and note how the sound is made. These are facts of interest, but they have no value as nature study unless the children really observe them; and to have even a small proportion of the 40 or more children in a room observe all of these things from one cricket cage would be clearly

impossible. Such a topic could not be carried out successfully under ordinary schoolroom conditions, especially with young children, and the knowledge gained is not of a kind that young children feel any need of. The selection of subject matter, therefore, was made irrespective of school conditions, or of young children's needs and interests, on the part of the supervisor. In view of the lack of preparation on the part of the teachers for any work of this kind, it was an error to select topics which presented such difficulties. Having had no such work before, many teachers needed suggestions as to how to carry on an observation exercise when all the children had the material before them. Work that requires continued observation over a considerable period of time requires a different handling, and teachers should not have such work thrust upon them without conference and suggestion. Under the circumstances they could only resort to telling the children the facts that they should have gained from carefully directed observation.

The same criticism applies to the work with the caterpillar and butterfly and that on the frog and toad. Each of these affords opportunity for study in itself, but if the children are to get a real knowledge of them the observation of each must be continued until the transformation from one form to the other has taken place. To do this requires a degree of knowledge and judgment that the average teacher can not be expected to possess without help and direction.

The simpler forms of observation the teachers have carried out quite well. An exercise on the caterpillar in a 2B grade showed that the classroom work had stimulated the children to observe them out of school. The children reported different kinds that they had seen, and what they had seen them doing. The interest this awakened would form an excellent basis for the study of their transformation.

Another exercise, scheduled as an opening talk instead of a nature study lesson, might also have served as a good basis for later continued observation had the teacher known how to handle it. She had brought a package of something that the children examined and pronounced to be onions. Instead, they were bulbs to be planted, so that the room might have plants in its windows. The children were ready to tell many things about them, but the teacher missed her opportunity by telling herself all that would happen when they were planted. The continued observation of the growing bulb until it blossomed would have given the children a knowledge of the development of plant life. Such work would have been of value and interest to the children in the first and second grades particularly.

The frog and toad, too, could furnish an excellent opportunity for observation work in themselves. Something of that kind had

apparently been attempted in some classes, but the lesson observed in a 5B class gave little hint of what had really been done. It began with a rambling review of certain points about the frog and toad, one being that their color was not always the same. The question as to what determines this was answered by the children that it was "where they lived." The question whether "there was any good in this" was then asked, and the children had at least a vague idea that it was a means of protection. As in several other cases, the topic was brought to an abrupt close, and the children were asked to recite a poem that they had learned about the stages in the life of the caterpillar, for which they could hardly have had the observational basis.

A lesson in a 4B grade showed similar weaknesses. The children had evidently made some study of caterpillars, and were asked what they are. The answer was that they are insects. The teacher then asked how they compared with other things that had been studied. The answer to this was that a caterpillar is to a butterfly what a tadpole is to a frog. For this broad generalization which was told them the children could not have had an adequate basis of observation. In order to bring out the idea of development the teacher then asked a child what he was called when he was very small. The answer to this was "a baby." She then said that a caterpillar was a baby butterfly. To bring out the idea that the caterpillars need a means of protection, she asked why the children would not want to eat them. This brought out the idea that a hairy covering, such as some caterpillars have, is a protection against birds. This was evidently an effort to form a generalization from the knowledge which the children had gained, but it is doubtful whether the generalization was based upon observed facts. If not, it had little, if any, value.

These glimpses of the work being attempted under the heading of nature study show that much remains to be done before the subject will serve the purposes for which it is given a place in the school system. These purposes may be variously conceived, but giving children an insight into the fundamental facts of nature by means of their own observation must be recognized as one of the important ones. That it must be adapted to the stage of development and degree of comprehension of the children in the different grades would seem to be self evident. That it must include excursions to near-by gardens, markets, and parks, so that children may gain an idea of the significance of the changing seasons would seem equally evident. If these purposes are to be realized in Wilmington, however, the work will need to be materially strengthened. Nature study is needed in most schools to show children that knowledge can

be gained at first hand and that the knowledge contained in books is second hand only. The schools of Wilmington need it particularly, to offset the overemphasis upon the three R's and formal instruction.

#### THE COURSE IN NATURE STUDY.

The outline, or course of study, is, speaking generally, a good one, and when actually worked out in the schools ought to produce fairly satisfactory results.

As to topics, only such should be selected as children have actually an opportunity to observe, and these are not always the same for schools located in different cities, or even in different sections of the same city. Hence a course that is suited to one city can not safely be slavishly reproduced in another. Some freedom in the selection of objects to be studied must be allowed teachers.

A little more emphasis on the study of pets in the lowest grades; and, in the upper grades, on insects injurious to plants, the relation of birds to insects, and of cats to birds, would improve the course. The food plants may profitably be given a larger place in the course, and their study coordinated with the teaching of "products" and "commerce" in geography.

The work of the seventh and eighth grades should include general science. Before children leave the eighth grade they should be familiar with the explanation of the common phenomena of nature whose explanation rests largely on physics, mechanics, or chemistry. The course is confined almost exclusively to plants and animals. The elements of meteorology can easily be taught and can profitably be coordinated with geography.

As to method, observation must be made the basis. This point can not be emphasized too much. Secondhand information by oral instruction or reading can be properly given on a topic after the pupils have studied it by observation, and such secondhand information must never be given when the facts can be observed.

In brief, what is needed to work out this course in the schools is effective supervision by the special supervisor in charge. This must be done by holding frequent grade meetings—at least one or two a week—and teaching the teachers, giving them matter and especially method. This must be followed by diligent visiting of schools, often teaching the lesson for teachers, and observing their teaching. What is required is intelligent, sympathetic, stimulating, and suggestive, not prescriptive, supervision. The teachers are interested, loyal, and ready to cooperate.

The board must liberally equip the schools with the material and apparatus needed. Such equipment need not cost a large sum, but teachers should not be expected to supply it at their own expense.

### 3. ARITHMETIC.

The course in arithmetic, while it has some features that are highly commendable, is rigidly logical in its arrangement, and prescriptive in its method of execution. Some of the results reached are those for which elementary arithmetic is studied, accuracy and facility in the fundamental operations with integers, fractions, and decimals; but the teaching quite generally falls short of possibilities for thought development. A very commendable feature of the course is that it is not encumbered with useless and obsolete topics, but is reduced to the essentials according to modern standards.

The course may be briefly summarized as follows: 3B, addition and subtraction; 3A, multiplication (with multiplier of one or two figures) and short division; 4B, addition and subtraction of larger numbers; 4A, multiplication with larger multipliers, and long division; 5B, addition and subtraction of common fractions; 5A, multiplication and division of fractions; 6B, decimals, all operations; 6A, common fractions reviewed, bills and receipts, and denominate numbers; grade 7B, denominate numbers and practical measurements; 7A, percentage and its application; 8B, interest, taxes, insurance, stocks and bonds and bank discount; 8A, mensuration, roots.

Although inquiry brought the response that "arithmetic did not seriously begin until the 3B grade," exercises in numbers were observed in 1B, 1A, 2B, and 2A grades, which were remarkably like regular arithmetic.

A later examination of the written course showed that considerable advancement in the acquisition of arithmetical facts was expected by the end of the second year, such as addition of columns of one-place, two-place, and three-place numbers, the sums of columns being limited to 50, and of the addends to 1,000; subtraction of three-place numbers not involving reduction; "multiplication within the multiplication combinations learned and no carrying required;" division within the tables learned, and without reduction of carrying.

What was meant by the response cited was undoubtedly that the drill work was not so regularly and vigorously carried on in the first two grades as later, and that written arithmetic was not done; but with such a definite limit as that given, there is great danger that, even with the game idea in successful operation, the energies of children will be drawn from activities far more profitable for them at this stage of their development.

Children feel an interest in numbers about the same time that they feel an interest in reading; they can master the number facts at 6 years or even younger, and at this age have some reasoning powers. This, however, is not conclusive evidence that it is the



time for regular number work. It is believed that, aside from counting and counting games to fix number sequence, and other number games through which some of the facts of number may be incidentally acquired, the time of children in the first grade may far more wisely be spent on language and reading, handwork, and on reading to them the best children's literature and telling them classic stories.

A 1B class, but a few weeks in school, was found being drilled not in number with things to count, but with cards upon which sums in figures, as "2 plus 3," were indicated. This may have been a mistaken notion of an inexperienced teacher; more generally the number game was found in operation. But there is a difference in the value and adaptation of the number of games which teachers do not seem to realize. This statement is illustrated by the following descriptions of two games seen in two 1A grades.

#### NUMBER GAMES IN FIRST GRADE.

In the first, the teacher distributed among the children cards, each child having a handful. In turn each rose and told his story thus: "One postman left me 4 postal cards, and another postman left me 5 postal cards. I have 9 postal cards."

In the second, the teacher placed upon the chalk rack a number of carefully prepared and colored pasteboard forms of fish, each bearing on it a label in figures, like "3 plus 2" or "4 plus 3." Children in succession went fishing. If able to give correctly the number fact carried by his fish, he was allowed to keep it. After the game was done the children counted their catch.

It must be evident that the former was far the better game from the standpoint of thinking; it provided for some exercise of initiative, and it furnished a real experience with number, while the latter simply "sugar coated the pill" of memorizing the abstract number facts, not represented by objects but expressed in figures.

Strict adherence to prescribed forms of expression, observed throughout the elementary grades, began in the first grade. For example: In a 1A grade, a child with counters in hand said, "I have 6 sticks in one hand, and 4 sticks in another; altogether I have 10 sticks." He was obliged to repeat, leaving out "altogether." Although the use of this word was the best possible evidence that he had the idea of aggregation, and had found the best word for expressing this idea, he was obliged to follow the prescribed form.

#### SECOND GRADES.

In the second grades the work proceeded on the basis of what had been acquired in the first grade; and although the play motive was

still used, automatic memory results were the dominant aim, and little provision was made for use of number judgment or initiative.

The work in these grades was not chiefly devoted to addition and subtraction, as is customary in second-grade courses, but included multiplication and division.

No use of objects to develop these number concepts was observed. There is some of it, according to the course of study, but not nearly enough of it. Multiplication was correctly shown to be a short way of finding the sum of like numbers. Drills in division through some game or blackboard device were seen, but " $9 \div 3$ ," or " $10 \div 2$ ," whether they appear on an interesting ladder to be climbed, or on apples to be picked, are abstract technical expressions, whose meaning can be taught only by experience with things.

The interesting association with the device may have helped memory, but it did not help the understanding of the number relation expressed by the form.

The nagging of children was frequently observed. A card was "flashed," or expression written on board, and the child called upon. When the reply was not immediate, instead of teaching him, telling him, or passing it to another, he was told to "think quick," to "hurry up," or told that he was "slow," that he "must do better than that." Such indiscriminate treatment puts a strain upon children, creates mental confusion, and inhibits the very mental operation it aims to help.

#### THE SOLVING OF PROBLEMS.

Above the second grade, where real arithmetic is said to begin, the plan for conducting recitations was observed to be quite uniform. The teacher writes upon the board certain problems involving the operations being emphasized; also examples in abstract arithmetic for practice.

In problem solution a very commendable custom was observed; namely, that of always having the pupil, before attempting a solution, state clearly what the problem tells him and what it asks him. This undoubtedly trains to careful reading and interpretation and is conducive to the formation of habits of organized thinking in the solution of problems. It also lessens liability to guessing and figure juggling. The logical solution follows, and after that the written statement and solution for the finding of the numerical result. The solution, however, was characterized by extreme and needless formality, in contrast with the orderly procedure just mentioned.

The following is a verbatim report of a 4B exercise observed. While it is, on account of the nature of the problem, a somewhat extreme case, it is typical of a general requirement, frequently observed.

*Problem:* "A farmer raised 4,369 bushels of oats, 7,475 bushels of rye, 7,968 bushels of corn, and 8,430 bushels of wheat. How many bushels of grain does he raise?"

"The problem tells that a farmer raises (four items repeated). The problem asks us how many bushels of grain he raised."

*Solution:* "Since a farmer raised" (four items repeated) "then he raises in all the sum of" (four items repeated), "which is so much."

In this particular school the idea of the socialized recitation had lodged, and the child reciting turned, after her recitation to the class, and said, "Has any one any criticism?" A boy arose and replied, "Mabel, I think you made a mistake; you put a 'then' in, which was not needed." The teacher approved of this criticism and directed Mabel to give the solution again, which she did, repeating twice fully between "since" and "so much" the four items, but properly leaving out the offensive "then."

This weighing down, this obstruction of real thought expression by attention to details of pronunciation and to uniformity of sentence construction, is the common school experience of these children, who naturally come to think that this is arithmetic. The only evidence of really accurate and logical thinking is truthfulness of expression, not memorized form, but in the child's own language; and it is to be expected that the shaping of this expression into precision is a slow process, but it pays in the end accomplished, namely, independence in thinking.

#### NO TEXTS IN GRADES.

Another serious defect, this time not a matter of method and not chargeable to teachers or administration, but to the school board, is the fact that there are no arithmetics in the hands of the children in the fourth, fifth, and sixth grades. All the problems and all the exercises for abstract work must be written on the blackboard by the teachers. This not only requires a great amount of unnecessary work for the teachers but deprives the pupils of the variety and the amount of new and stimulating problems and practice material needed for the development of arithmetical thinking and skill in computation. This is a condition that is absolutely inexcusable and should be corrected at once.

The lack of this important teaching tool is due to inadequate funds. "The school board can't afford it" was the reason given by teachers. This places the responsibility also on the city council and the taxpayers. This denying the workman the necessary tools is a kind of "economy" which in business would soon make a rich man poor.

A commendable amelioration of this impoverished condition was observed. Teachers of the third and fourth grades are supplied with desk copies of a bright, new, good mental arithmetic, from which they read to children, greatly to the delight of the latter, problems relating to home and school and shopping. This, however, is no substitute for a textbook in the hands of each pupil.

The lack of problem material in upper elementary grades might be made up by more original problem work. This is a common practice, even in good schools, where children are supplied with textbooks, and under the circumstances found in Wilmington is even more necessary, if children are to be taught to apply in practical ways what they are taught, if information is to be transformed into real knowledge, and the purpose of all this work become an actuating motive—that is, if children are to be given a vision of the relation of arithmetic to life.

#### OBJECTIVE WORK IN FRACTIONS.

In the work with fractions the practice varies, of course, with the conception of the teacher as to what teaching really is and her willingness to devise objective means of presentation and her skill in handling this material. The use of some objective means of teaching the idea of the fraction, although inadequate, was very generally observed. One exercise of especial merit was seen. The teacher had prepared apparatus consisting of pasteboard circles, variously colored and cut; and with children grouped intimately and naturally about the table at which she sat they were led to discover truth for themselves; they were handling real fractions, and the eagerness with which they availed themselves of their turn was evidence of the sense hunger felt. Written expression on the board followed each discovery. The improper fraction and the mixed number were skillfully developed, expressed, and finally defined in the children's own words.

From grade 3 to grade 6, inclusive, the course follows too closely the two textbooks prescribed as a guide. These books are not quite up to date as to method. They encourage too early and too much abstract work, the use of too large numbers in the early years, and demand too little reasoning. In consequence much of the work of the first five years is too abstract and mechanical.

#### DEVELOP NUMBER CONCEPTS FROM THE CONCRETE.

Not enough is done to develop the arabic notation so far as place value of figures is concerned. In a class of 39, in grade 3A, the following simple test was made: The visitor wrote the numbers 19 and 27 on the blackboard and asked the children what they were;

all answered "nineteen" and "twenty-seven." Then he asked them if the 19 were apples, which they would rather have, as many as this figure means (pointing to the units) or as many as this (pointing to the tens) means? Then, in like manner, he asked them if the 27 were peaches, which would they rather have, pointing to the units and then to the tens. He asked them to write their choices on a slip of paper and hand it to him. All of the 39 but 1 preferred the 9 and the 7. This was in grade 3A, wherein some children had been adding and subtracting numbers of three digits the year before. The same test was given in the same way also to a class of grade 5A, and every pupil chose the 9 and the 7. The value of place must be developed by more effective devices than talking about units and tens or by "numeration."

Every new number relation or new thought process to be intelligible to children must be developed from the concrete. Much more concrete work than is found in the Wilmington schools is desirable. This applies to the teaching of fractions and whole numbers. In fractions the use of objective illustration in teaching the conception of a fraction is universal in the schools of Wilmington; in teaching the processes of addition and subtraction it is limited; in teaching the processes of multiplication and division no use at all is made of objective work, as shown by tests made by the observer. Pupils in 5A that were tested were all unable to illustrate concretely the addition of one-third and one-fourth; many could not illustrate the addition of one-third and one-third.

In grade 6B a number of pupils tested could not illustrate six divided by two; none could illustrate four divided by one-half; 25 per cent were unable to illustrate seven times five. Grade 6A did very little better. In grade 4B 10 per cent could not illustrate seven times six. In grade 4A 40 per cent could not illustrate five times seven and three times five concretely. In decimals no concrete illustrations of thought processes were observed in any of the schools.

Such absence of concrete development of thought processes, and the consequent formal drill on the abstract, leads to a lack of ability to reason in arithmetic which shows itself from the early grades to the eighth. With some processes children in the seventh grade had as much difficulty as children of the fifth may reasonably be expected to have.

#### UPPER GRADE TEACHING LESS MECHANICAL.

The teaching in grades 7 and 8 is distinctly less mechanical than that in the lower grades, and much good teaching was witnessed. The applications of arithmetic to business, to investments, taxes, etc., were well developed. The emphasis was properly laid on the nature of the business transaction and not wholly on calculation.

Such a subject as taxes is more properly treated as a topic in civics than as a topic in arithmetic. The Wilmington schools so treat it and place the emphasis accordingly. Stocks and bonds is the only topic in the elementary school curriculum that furnishes an opportunity to teach children how to tell the difference between safe investments and swindles. Such information is a better protection than blue-sky laws. It has been successfully given to children of grades 8 in other cities, and the topic is quite well taught in the Wilmington schools. Teaching thrift in the schools, as we do, is of little value unless we also teach young people how to invest their savings.

The course of study, too, for grades 7 and 8 is distinctly better than the course for the lower grades. It makes very helpful suggestions; and it contains a list of obsolete topics to be omitted, which is an important feature. As they are still found in textbooks, teachers will waste time upon them if they are not specifically requested to omit them.

#### RECOMMENDATIONS.

1. The elimination of all formal number work from grade 1A and 1B; the introduction of more games requiring counting; the association through objects of number, name, and symbol; and the writing of numbers in sequence; more measuring and making with paper, cardboard, and stick-laying, all consciously and thoughtfully directed by the teacher toward the development of the mode of judgment we call numbering, leaving the memorizing of facts to the incidental picking up of such as may be discovered through these experiences. Number work in this grade should be wholly incidental and should not be made a basis for promotion.

2. The emphasis in the second grade of addition and subtraction, leaving the acquisition of facts in the ratio operations to such as develop in work with objects; that is, the child who knows that 3 and 3 are 6, can be taught the other expression for it, 2 times 3, and see that there are "two 3's in 6," which is the division point of view of the same objective fact. Abstract drills in multiplication and division, however, should be postponed until later. Number work in this grade also should not form a basis for promotion.

3. The permitting of freer and more individual expression, the "cycle of thought" still being (*a*) the object of thought (a problem real or imagined); (*b*) the direction of the thought to fit the object; (*c*) the direction of expression to fit the thought; that is, expression that is true, but not necessarily of prescribed form.

4. The earlier introduction of measurements, with the actual measures in general use, will afford a greater variety of practical appli-

cations, now largely confined to dealing with money. There is no reason why small children should not be given experience with inches, feet, and yards, with pints and quarts, with telling time, and with pounds and ounces by their actual use in measuring and in solving problems. Such use will put motive into computation, help the acquisition of the number facts, and broaden the conception of number relations.

5. More varied and more abundant application in upper elementary grades, for which textbooks in the hands of children are needed.

6. The perpetual encouragement of and insistence upon the use of oral arithmetic where accurate computation does not require the use of the written record of the steps.

7. A more vital connection of arithmetic with life through the use of original problems brought in by pupils, and through illustrations and demonstrations of the uses of arithmetic in their homes, in the store, in the factory, and elsewhere in life.

8. There is need of the recognition of the differences between children in their ability to reach the same speed limit in computation, and in their ability to see relations. There is, therefore, constant need that principals especially, because they know individual children, shall carefully protect them from the common mistakes made by teachers desirous of bringing all pupils up to a certain standard, and that teachers be guided toward respect for the individual child.

9. Too large numbers are used in grades 2A, 3B, and 3A, and not enough small ones in grade 4B and grade 4A. With large numbers in these lower grades, the pupils inevitably do the work mechanically, and this is the observed fact in the Wilmington schools. Number relations can be represented concretely when the numbers are small; such relations are also much more readily comprehended later abstractly with small numbers. Much better thinking can be secured. The absence of anything like adequate concrete work, and the too early use of large numbers in teaching the "four fundamental" processes, accounts for the low average capacity in arithmetical thinking of children in the Wilmington schools. The children are bright, the teachers, as a class, are capable; it is the method that is at fault. This is a matter for supervision to correct. The teachers are following the method which the course of study prescribes for them.

10. To make it possible to teach effectively the standard units of measure referred to in (4) above, the actual measures must be furnished the schools, at least one complete set for each building. This is not done in Wilmington. It need hardly be added that in solving problems of measurement, the children themselves must do actual

measuring; they must not merely be shown the measures and told their names.

11. Interest is not taught until the eighth year. This is a mistake. It should be taught in its simple aspects not later than grade 6, so that children who leave school at the end of the compulsory attendance period will get it. It should include compound interest in its application to savings bank deposits, and should be used to interest children in thrift and to induce them to deposit their savings in these banks.

#### 4. GEOGRAPHY.

Geography, as a regular subject of the course, begins in the 4B grade. A general outline of the course, so far as subject matter is concerned, is as follows:

4B. General view of the world as a whole, through the reading of the book, "Around the World with the Children," this being in the hands of the children.

4A. A study of Wilmington and the State of Delaware.

5B. United States as a whole.

5A. The sections of the United States.

6B. Europe and South America.

6A. Asia and something of Africa and Australia.

In 7B, 7A, 8B, and 8A, a second survey of the various continents is made, with the emphasis more on the deeper relations of cause and effect; many phases of physical geography are treated which have a causal relation to or controlling influence upon political geography, commerce, and human life generally.

No subject possesses greater possibilities of interest than geography. It is a study that can be made practical, concrete, and comprehensible to the children, through the use of a great variety of illustrative material, such as pictures, specimens, and stories, as well as through the right use of maps, globes, and the textbook. It is a study that has, therefore, great possibilities for the development of ability to think, and if rightly handled, will have a cultural effect of lasting value.

Of the subjects in the elementary schools of Wilmington, geography is one of the best taught, speaking generally.

Supplies of maps and globes found in some schools are fairly adequate, in others wholly inadequate. Very hopeful beginnings of suitable collections of supplementary geographical readers for fifth and sixth grades were observed.

The project or problem method has very recently been introduced by the best teachers of Wilmington, and is promoting the right use of the textbook and the purposeful reading of other books. This is



to be highly commended. Its use should, however, be much extended.

As experience with this method progresses, there will probably be an improvement in its use by teachers, the first one suggested being the raising of problems that are not so comprehensive or so general as those which are now directing effort. As teachers grow in skill in handling projects they will also, undoubtedly, use more that have definite relation to the experiences of the children and grow out of those experiences. If the interests of different groups of children are consulted, it must follow that exact uniformity throughout will not be found, since the interest dominant at a particular time with different groups is very apt to vary. This is quite sure also to be affected by the different dominant interests of different teachers. Right adjustment would, therefore, mean considerable latitude within the general requirements of the course.

#### OUTLINE TOO RESTRICTIVE.

As a matter of method it is feared that the outline prescribed in the course for the study of geographical units, such as "location," "size," "shape," "climate," "surface," "products," etc., hampers freedom and the natural development of interests. Although there exists a logical sequence between location and climate, between climate and production, and between production and industries, this is not always the best sequence of development for children. They should be allowed to start in at any point that their interest leads them to, and then by a natural following up of questions of cause and effect reach the desired knowledge requirement. It may be said in reply to this comment that the proposed plan of study is intended to be merely suggestive, and that teachers are entirely free to vary it. Teachers, however, do not so interpret it. It would be better to have it definitely understood and explicitly stated that the outline expresses the ultimate aim to be attained, according to which, after the study of a subject, the pupils can organize the knowledge gained by discussion, reading, and thinking. This logical arrangement should not be imposed upon children; it is the psychological one, the one that is definitely related to the learner that will bring the best results. The outline should come at the end, and should grow out of the discussion of the material taught, and be made by the pupils under the suggestive guidance of the teacher. It should be a summary of what has been taught, and not a skeleton of what is to be taught. Its purpose is to organize knowledge already gained.

To point this suggestion, there are cited here four different exercises in grade 4B, where the classes, in their journey "Round the

World with the Children," had quite generally arrived in Japan. In the first place, this book is admirably adapted to the interests of children, and almost any handling of it must result in some educational good to them; it had stimulated the collection of interesting objects, and these collections were quite generally seen. But in the use of the book several distinct levels of pedagogical practice were observed.

An exercise in 4B geography was observed, in which the approach to child life in Japan was made through a quiz on zones, climate, etc., evidently with the mistaken notion that this logical, adult approach was the right thing, and that this delightful book must be used for the developing of knowledge to fit the established outline.

A second exercise was observed, which was highly entertaining to the listener. The children rose in succession and each recited from memory a paragraph telling something about child life in Japan. When the children could not recall their parts they were allowed to read them. This was better adapted to the interests of children than the first described. The language was simple and the children enjoyed reciting their little "pieces." It is, however, needless to add that such memorizing of the text is out of date in all good schools.

Another class in the same grade in another school was called upon to tell what they had learned about Japan, and how it differed in its customs from this country; also to tell what we get from Japan. The children seemed bursting with desire to tell what they knew and indulged in very free conversation, the only restriction imposed by the teacher being insistence upon the elimination of "and," which to a child seems an almost necessary string to put his beads of thought on.

This exercise was, from a pedagogical point of view, on a distinctly higher level than the first, and better than the second for its provision for self-activity. Instead of memorizing the text the children reproduced the content in their own language.

In another school a still different treatment was observed. There, as in a number of other 4B rooms, there was an appropriate setting for this geography work. There were beautiful blackboard borders showing Japanese motives, and there was a collection of Japanese articles, including several beautiful umbrellas.

Several children, apparently promiscuously chosen, were called upon to tell of an imaginary trip through Japan. A little girl was quickly transformed into a Japanese child by the use of a fan and an umbrella, and a little scene enacted, in which she was met by an American girl, whom she greeted after Japanese fashion. The American girl then proceeded to ask her little foreign visitor various questions about her home, how they conduct their tea parties,

how preparations for sleeping are made, what kind of dolls they have, etc.

This, on account of its providing for the exercise of imagination and for the expression of the dramatic instinct, seemed to be on a still higher level, better than the third on account of the motive introduced, much better than the second, and very far removed from the first. Of course, all geographical thought material does not yield to dramatization, but there is every reason for trying to free it from formality and irksomeness.

#### LESSON TYPES OBSERVED.

In the handling of the 4A topic, namely, the study of Wilmington and Delaware, there was observed the same differences in treatment, ranging from the recital of mechanically memorized information about Wilmington to the discussion of how Wilmington could become a greater city. There can be no question of the differences in educational value of the following described exercises, which again, are arranged in order of what seems to be their pedagogical excellence.

In the first sort the logical approach by means of the outline was insisted upon, instead of the approach through the dominant interest of the class.

In a second sort of exercise children recited information about Wilmington, this having been evidently assigned, prepared for the occasion, and memorized. Whatever may have happened in the way of explanation when the assignments were made is not known, but the vocabulary was pretty stiff for little folks, and the general effect could hardly be considered highly educational.

In a third, a somewhat better use of gathered information was made, when, as the discussion proceeded, children were called upon to produce what they had found in newspapers or elsewhere concerning Wilmington, and read it before the class.

In a fourth, a systematic study of industries was most in evidence. Large placards bearing in colored letters the name of an industry, as "Ship building," "Leather," "Powder," appeared upon the walls, surrounded by objects and pictures in illustration. The children seemed as well informed about them as could be expected of fourth graders; and best of all they were allowed quite uninterrupted use of the opportunity to tell to an interested auditor what they knew. The teacher wisely kept in the background. This was somewhat better than the preceding, because of the degree of self-activity allowed pupils. Both were orderly in procedure.

In a fifth class, more of rational geography was being attempted. It seemed that the day before Ralph had said that Wilmington was

sure to become a much larger city than it now is, and to-day, after thinking it over, he was expected to explain and substantiate his statement. What had caused Wilmington to become the city it now is? What must be done to provide for further growth?

This may have been a pretty big undertaking for fourth graders, but it had its possibilities for touching the civic consciousness of these young citizens, while teaching them the main facts about manufactures, products, etc., which other classes were getting. It may be interesting to know that this excellent teaching was in a school said to be in the "slum" district of the city.

Exercises in fifth and sixth grades were observed which illustrate quite as distinct differences in the teaching of the different topics studied by these grades. In the best there were always the picture material, the collection of appropriate objects, the use of supplementary books. In many, there was outline following as a method of approach instead of as a final recapitulation.

#### COMMENDABLE FEATURES.

On account of the use of the project method, this most commendable thing can be said of the teaching; namely, that there was rarely observed the old, unmotivated, mechanical assignment of "the next paragraph" or "the next chapter," or "take climate," or "take products," to-morrow. Assignments heard were made as they should be, with reference to their bearing upon the problem under consideration. But as already suggested, it will be better to raise problems that are less comprehensive in scope. A comprehensive problem is best treated by a separate discussion of the more specific problems involved in it.

Need of improvement was also noted in the discussion and application of the reference reading found and presented by pupils. This reading matter frequently needs to be fitted to the understanding of children by questions and explanations, but this was sometimes omitted, making the exercise of doubtful value.

Especial commendation is deserved by one of the principals and her assistants, who, by their self-sacrifice and persistent effort, succeeded in raising money for the purchase of a fine lantern for the school. The writer observed with pleasure the preparations made by the boys of the room for an exhibition, such as the darkening of windows, the making of electrical connections, all done systematically and with dispatch by these willing helpers. Then came the views and the free questions and answers. This was in a section where there is little of culture, little of variety in the children attending, and was therefore done under handicaps. It was what could be done in all the schools by superior

The stereographic views found in several schools are also very valuable geographical material.

A larger supply of geographical readers is needed. A variety is desirable, and the scanty collections observed included the best material of the sort available; but there is need, for really good work, of enough books of all kinds, so that each pupil will have a book of some kind. This lack was frequently complained of by teachers, who were seriously hampered in consequence of it. This is sometimes called "economy" by school boards.

While some teachers still do most of the talking and thinking in class themselves, there is an increasing number who are learning to throw the lesson into the hands of the pupils, a democratizing performance of great value.

#### UPPER-GRADE GEOGRAPHY WORK.

Speaking generally, the teaching of geography from the fifth grade to the eighth, inclusive, is good. Here and there individual teachers do poor teaching, as already pointed out, but the majority teach the subject effectively, and a limited number are doing superior work. This is especially true in grades 7 and 8. Excellent teaching was observed in many classes in these grades. Speaking comparatively, geography is taught better than arithmetic, and far better than oral and written composition, elsewhere discussed in this survey.

The teaching in these upper grammar grades is done wholly on the departmental plan in all subjects, and teachers have more or less specialized in the subjects they teach. The excellence of the teaching of geography is due largely to the fact that teachers have attended lectures on the subject in summer schools and in extension courses by college teachers. They are familiar with the best current thought on the subject, as shown in their teaching.

One of the excellent features of the work in geography in the upper grades is the emphasis placed on the causal relations between physical features and forces and political, economic, and social geography.

The course follows, in the main, a good textbook but not blindly, and requires much outside reading.

#### SUGGESTIONS OFFERED.

The following criticisms may fairly be made on the course and the teaching, and may be helpful.

Not enough emphasis is laid on map drawing from memory for the purpose of fixing in the mind the general shapes of continents, of a few of the great nations (not of States), and the location of such physical features and of cities, etc., as every intelligent person should

remember permanently and should have as a part of his ready knowledge. This means only a comparatively few important data. But these should be drawn from memory repeatedly in class until they are firmly fixed. The copying of detailed maps from the textbook is a waste of time. The facts to be drawn should be specifically stated by the teacher, and the pupil should make his own map to be memorized with the help of the textbook map, from whose confusing details he must select the data wanted.

A simple test was given a 7B class to determine their ability to reproduce from memory such data as to their own country as should be at everyone's ready command. They were asked to draw an outline map of North America and ignore all but the most important features of the coast line, and to pay very little attention to the coast line on the north. They were asked to draw the St. Lawrence River and make a rough drawing of the Great Lakes; to draw the Mississippi and the Ohio River; and to place a dot to indicate the location of the following cities: New York, Boston, Philadelphia, Baltimore, Chicago, St. Louis, San Francisco, New Orleans, Detroit, Cleveland, Minneapolis, Kansas City. Of the 33 maps drawn, not one could be called really good; a limited number were fairly good. One of the best located New York City in the region of Cleveland, and Kansas City in the region of Alabama; one of the poorest ones located New York City north of the St. Lawrence River, and Minneapolis on the Pacific coast in the region of Vancouver. Another located Minneapolis in the region of Colorado, and Baltimore on the coast north of the Great Lakes. Coast cities, like Baltimore, Philadelphia, and New York, were located by some as inland cities. Comparatively few could draw the coast line with any reasonable degree of correctness to show the most important features.

This class was apparently a class of average ability, and the teaching in other respects, so far as observed, seemed to be good. Evidently map drawing, as the most economical method of map study, was not used. This is true of the Wilmington schools in general and needs the attention of supervisors and principals.

More systematic, definitely planned, training in map interpretation would strengthen the instruction. A map has a number of functions. First, it shows the shape or outline of a continent or country. This is a simple use of it which can be made early in the course. Second, it shows location. This is also simple. Third, it shows direction. This is simple in case of maps of relatively small sections; but in case of maps of the continents, lines of longitude and parallels of latitude must be observed to determine direction, and this involves more difficulty. Fourth, a map shows contour, elevation, and depression. This is the most difficult feature to in-

interpret, and most children can not do it unless very carefully trained. This last use is emphasized in the upper grades of the Wilmington schools. Fifth, a map shows distance, and to interpret it the pupil must observe the scale on which it is drawn.

The beginning of map interpretation, it need hardly be suggested, should be made by drawing a map of the schoolroom, the school yard, etc., and studying a map of the city in which they live.

#### RECOMMENDATIONS.

1. Although in grades 1, 2, and 3 the subject of geography should not be treated as a separate strand of the course, there are many phases of the subject that can be introduced preparatory to the more specific work done in the fourth grade. It is recommended that in the first grade, the occupations closely related to the home be observed and discussed, and expressed in simple ways on sand table or blackboard or booklet, such as the bakery and the grocery.

In the second, those a little more remote, as the shoemaker and the weaver. In the third, how we are sheltered, fed, and clothed are interesting problems and broaden still further the vision of little children.

Hearing of child life in other lands is extremely interesting to all the early grades.

Material such as is found in books like "Seven Little Sisters," "Each and All," "The Dutch Twins," and many more recent books, forms a most appropriate approach to geography for grades 3 and 4. It presents the human aspect of geography, which appeals to children and creates a desire to know where these people live, a desire in short for real geography. Abstract location has no interest for children.

2. An appeal to the imagination and training to think, and not knowledge of facts merely, should be made the dominant aim in all the geographical work.

3. Much more use should be made, especially in the grammar grades, of map drawing, from memory, of the continents and of the most important countries, but not of separate States, except the pupil's own. Such maps should contain no items except such as everybody ought to remember permanently. In addition to this, it is recommended that pupils be encouraged to sketch quickly maps in connection with special topics for illustrative purposes.

Printed outline maps of all sections and countries studied, to be filled out by pupil, should be a part of the work, but should not take the place of maps wholly drawn by the pupil from memory in class.

4. The outline which indicates the scope of work expected in the treatment of any topic should be developed in class as the final and

finished recapitulation, rather than be given the class and made the approach. It should be treated as an organized summary of what has been taught, and not, as is now done, as a blocking out of what is to be taught.

5. Teachers coming as they do from a number of different training schools, and coming with different experiences and interests, should be allowed more latitude in the choice of topics, problems, projects, methods, and devices, through the use of which children are led into the geographical field.

6. The excellent beginning, already made, in the collection of objects and pictures should be continued; and the sets of stereographs found in several schools should be provided for all; and the board should provide maps, globes, lanterns, and slides much more liberally than is now done. Many of the schools are seriously hampered for want of these necessary and relatively inexpensive equipments.

7. Some of the principals of the elementary schools ought to make a greater effort to enlighten themselves in regard to geography teaching according to modern standards, and thus give better support to the supervisory head, put themselves in a more sympathetic attitude with their more progressive and ambitious teachers, and fit themselves to aid and direct the weaker and less experienced. In short, all principals should be, as fortunately many of them are, competent to supervise instruction effectively.

### 5. READING, PENMANSHIP, SPELLING.

This report aims to present a study of the subject of reading throughout the first six grades, from its beginning in the 1B to the 6A, inclusive, to determine, if possible, how effectively the problems in this subject have been met and solved as they arise from grade to grade. These problems are many and varied and are peculiar to each year of the child's life. They should be considered in their relation to the child's development, to the requirements of the course of study, and to the interrelationship which they bear the one to the other.

How have the little beginners just entering school met their initial contact with symbols as a representation of the well-known sounds in their oral vocabulary? Has this most difficult association, the printed form with the oral, been made easily and naturally, with profit and pleasure, or are there signs of stress and undue effort apparent in their mastery of the early reading process? How effectively has the phonic problem been solved, both as regards the acquisition of power and the ability to use their knowledge once acquired in its application to proficiency in reading? How have the reading habits formed in the lower grades functioned in the



upper? Has the oral reading been overemphasized to the exclusion of much practice in silent reading? Does ability in the first carry over into the second and make for proficiency in the study of texts in history, geography, arithmetic, and in reading for the appreciation of good literature?

#### MEASURING PROFICIENCY IN READING.

In order rightly to estimate proficiency in reading, units of measurement must be found which gauge not only the tangible results obtained by a given method, but quite as definitely evaluate the process by which the goal has been reached.

Many methods lead ultimately to proficiency in reading. Some of these are primrose paths which eager feet are glad to follow. Some are strewn with obstacles which retard and impede the pupil's progress, and some there are that wander far afield with waste of time and effort, binding the spirit of the child in weariness and apathy.

The extent to which pupils fail of promotion is one such unit of measurement. Figure 1 (p. 44) shows the failures in reading among the pupils of the first six grades in Wilmington (June, 1920) in comparison with failures in all other elementary subjects, and in comparison also with similar failures in the same grades in the schools of Butte, Mont. (June, 1916), and of Cleveland, Ohio (June, 1914).

A study of these curves indicates that nonpromotions in all subjects in the first three schools—Butte, Cleveland, and Wilmington colored—are unusually large; that reading is the stumbling block in the first and second grades; and that other subjects besides reading enter into the problem of failure in the third, fourth, fifth, and sixth grades.

The curves in reading for Wilmington white schools demand especial attention; they seem to indicate that a relatively low score of failure in the first grade may be the cause of a relatively high failure in the sixth; and that promoting pupils en masse in the lower grades without due regard to proficiency may bring a day of reckoning for the sixth-grade teacher in her attempt to bring her pupils up to the necessary requirement for the more technical work of the junior high school. Evidently the Butte and Cleveland pupils gain a power in their early years which carries them safely over the crucial period in the sixth, Butte scoring a failure of two-thirds of 1 per cent for this grade and Cleveland 2 per cent, while Wilmington (white) rises to an 8 per cent failure for sixth, thus meeting the Wilmington (colored) schools at the same point for that grade. Too many subnormal pupils are carried along from year to year in the

Wilmington schools, which is clearly indicated in this diagram. Overage pupils were noticed in nearly every room visited, and many teachers deplored the lack of special provision which should be made for these pupils.

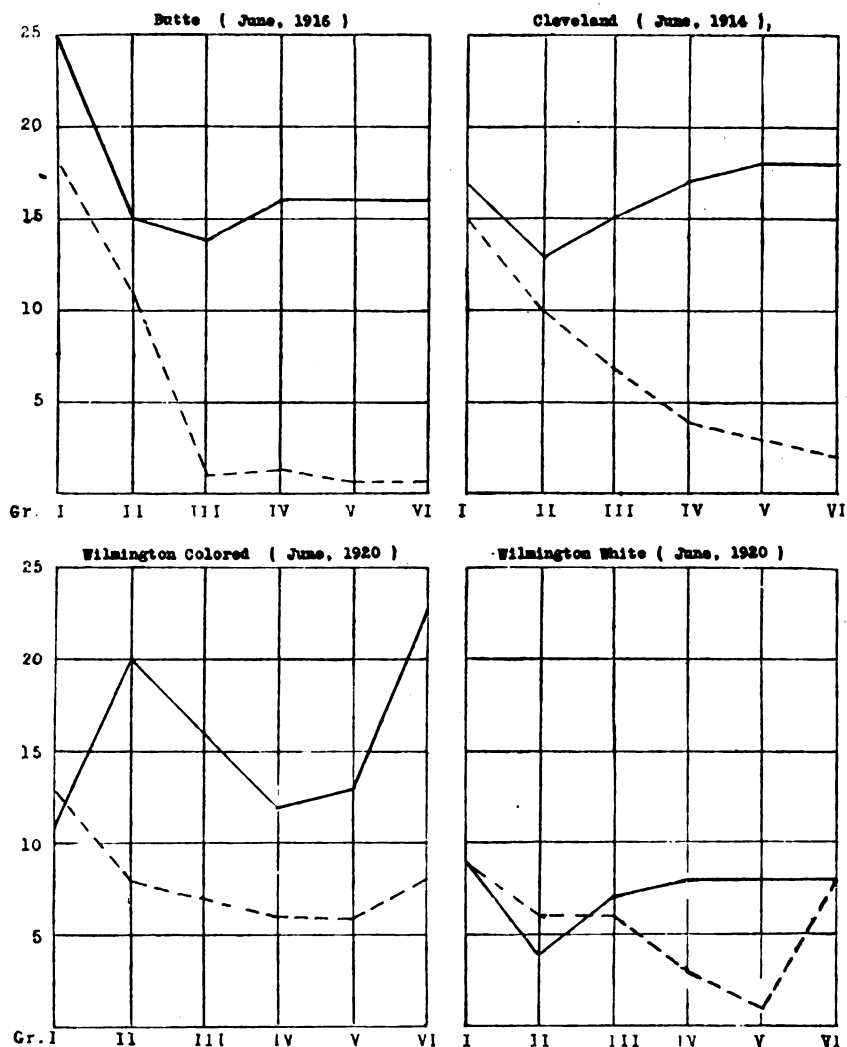


FIG. 1.—Comparison of nonpromotions in all subjects in the first six grades with failures in reading in Butte, Cleveland, and Wilmington schools.

#### ANALYSIS OF FIRST-GRADE FAILURES.

Even a cursory study of these lines of nonproficiency is illuminating. All four schools show a major difficulty in passing the first-grade requirement in reading. About 1 pupil in 7 drop back at this

point in Cleveland, 1 pupil in 8 in Wilmington colored, and 1 pupil in 11 in Wilmington white, and every fifth pupil repeats in Butte. Judd, in his measurement of work in the Cleveland schools, maintains that "this curve represents what would naturally be expected in any subject which is carried throughout the grades and is successful in its training of the children. We would naturally expect that the initial difficulties in the study would hold back any one who is likely to develop serious weakness later." From the subject-matter point of view this is undoubtedly true, but from the pupil's standpoint does it not seem like an arbitrary solution of the problem?

Is there any natural trait in 15 per cent of the children in a class in beginning reading which requires of them a repetition of the work for two successive years of their school life? May not the requirement be too high, when 1 pupil out of 11 in the white schools of Wilmington and 1 out of 8 in the colored schools fails to acquire the necessary proficiency? Could not the subject matter and the method be modified to suit the ability of every child in the class?

The first grade in public schools, generally, has been since its establishment a clearing house wherein a child has found his level by a standard wholly outside of himself and unrelated to his particular endowment. Recently the attention of educators has been turned from methods of teaching reading to the child himself, to ascertain why he fails and in what way he differs from his classmates who have passed on to a higher grade and have left him stranded. Already in many schools a simple measurement of his mental ability has been taken, usually by some modification of the Binet scale, and then attempts have been made to adapt the course of study and the methods of teaching to his particular type of ability.

Some attempt of this kind has been made in Wilmington. A phonic method is in use in some schools for the early work in reading where pupils of foreign parentage are found to predominate, and where much help in clear enunciation of English sounds is necessary. In other schools, where pupils come from American homes and are already familiar with nursery rhymes, a method based upon the repetition of certain words and phrases in this type of child literature is used.

This organization of subject matter is not based, however, upon a scientific study of the children, but upon the observation and experience of the teacher. It is earnestly hoped that, out of this initial attempt in Wilmington to adjust the work of the school to the needs of the children, a scientific classification of the pupils in the first grades at first, and later in all, may develop and that an investigation of this movement in other cities by the superintendent and his

assistants may lead to the adoption of a similar course in Wilmington.

It is a principal of great importance in this early work in reading that the two factors mentioned below should be kept separate and distinct. (1) "Much time should be devoted to the mechanics of reading," and (2) "constant emphasis should be put upon the acquisition and interpretation of the thought," are the two fundamental processes in learning to read. Robins, and in fact all authorities who have probed deeply into this subject, agree that the two lines of work can not be profitably carried on at the same time, in the same recitation; for the first requires numberless drills in the acquisition of forms through acts of memory, while the latter exercises the imagination, the feeling, and many other attributes of the mind which training in recognition of symbols does not require. In fact, it was constantly demonstrated in classes in early reading in Wilmington that pupils who were being drilled on words and phrases were not thinking of the meaning of those words but were trying to remember the form only. It was observed frequently in many classes that the child remembered the word by its position on the board, and failing to read correctly from the chart he could "get the word" when the teacher directed his attention to the permanent list of words on the board. Thus does nature protect the child's mind from overstrain and fatigue, for by using his mind's eye and remembering words because they occur in a certain order on the board he satisfies the teacher's requirements and saves himself an undue amount of exertion.

Why not give the child at once the necessary phonic tools, so that he can help himself to unknown words, and in other periods of the day's program give him interesting vital reading matter based upon his everyday experiences, in short, simple sentences written upon the blackboard, and leave the more difficult reading of classic literature to a later period of his year's work when he can read the text easily with the thought uppermost in his mind, and when he will not need to spend a week, or even two weeks, on one page of his reader because the technical difficulties of his reading have not been mastered? Too often these principles are lost sight of in the stress of the year's work.

#### READING IN THE MIDDLE GRADES.

The oral reading in the middle grades was unusually good, judged by all standards of comparison. Fluency, good articulation, expressive enunciation, all bore witness to the careful training of pupils in the lower grades. Perhaps an overemphasis has been placed upon these requirements in oral expression, for the ability to

interpret a paragraph read silently failed to measure up to the proficiency found in oral reading. This, no doubt, was due to a lack of training in this essential element in reading. Silent reading and its interpretation are among the very recent problems to receive the attention of the supervisory staff in Wilmington. An attempt is being made this year for the first time to provide for training in this important phase of reading. Without this specific training in silent reading children are usually quite impotent to acquire it, for proficiency in silent reading comes with practice, just as it does in oral reading. A movement throughout the schools of the United States is under way to emphasize silent reading and to minimize the importance of oral reading—at least to place less importance upon the one at the expense of the other.

#### PENMANSHIP.

Writing in the first three years is by crayon on the blackboard and lead pencil on paper. Writing with pen and ink is begun in the fourth year. The writing during the first two years is mainly on the blackboard, and, of course, with the whole-arm movement. The forearm, or “muscular” movement, is taught from the fourth year up.

The question of teaching writing at all during the first two years is, to say the least, a debatable one, and in many good school systems it is not taught in these grades. There is not sufficient space available in a survey of this kind to enter into the reasons for this omission. As elsewhere recommended, writing, along with arithmetic, in Wilmington, should at least be reduced in these grades to make room for reading good literature to the children.

The quality of the penmanship in regard to the two essentials of legibility and speed is not so good as it should be; much of it is decidedly poor.

While the muscular movement is taught in the writing period, it does not carry over effectively into the pupils' other writing. Classes were observed in which only from one to three pupils in the room were using it; all the rest wrote with the finger movement. Not all actually used it in the writing class. This indicates that the nature of the movement is not clearly explained to the children by the teachers, or that they fail to give effective drill in it. In some classes observed there were indications of both. The muscular movement is easier to acquire for the more mature children of the upper grades and should be especially emphasized there.

The matter of penmanship needs the attention of the supervising staff, consisting not only of the superintendent and the assistant superintendent, but also of the principals of schools. Detailed supervision of instruction devolves upon the latter.

## SPELLING.

The same painstaking effort to teach the mechanics of spelling was observed in these classes which marked the methods used in reading. Two lines of work were carried on, lessons based upon phonetic families, and lists of words from the spelling book. A first-grade spelling lesson based upon phonetic words follows:

(Teacher) Who can tell what family we had yesterday? (Pupil) The "en" family. (Teacher) Spell the en family. (Pupil) e-n, en. (Teacher) glen. (Pupil) g-l-e-n, glen. (Teacher) hen. (Pupil) h-e-n, hen. (Teacher) What is a hen? (Pupil) A chicken. (Teacher) pens. (Pupil) p-e-n, pen. (Teacher) Don't you hear an s on that word, pens? (Pupil) p-e-n-s, pens.

Other words in this family followed, ten, men, den, etc., and then the "ell" family was taken up.

This material for early spelling lessons is excellent. It follows logically the lessons in phonics which the pupils have had and completes the process of his word study, from the sounding of the letters in a word to the naming of them in the required order. Care should be taken not to burden the child with unnecessary repetition of words he already knows in his spelling lessons. Perhaps the greatest need in the work of spelling in our schools is the careful preparation of the spelling lesson by the teacher and the elimination from the daily drills of those words with which the child is already familiar. An appalling amount of time is wasted by a failure to do this. Rightly trained in phonics the child will know how to spell 87 per cent of all the words in the English language, and the teacher's task is to teach the remaining 13 per cent only. How many teachers confine their efforts to the unknown words in a spelling lesson? How many give the entire list as it stands and spend just as much time drilling upon the known element as upon the unknown? These are pertinent questions which will lead to much needed reforms in methods of teaching spelling and to greater power on the part of the pupil.

A lesson in third-grade spelling was conducted as a study recitation, with open books in the hands of the pupils.

The following lesson is that given in a third grade and was based on the textbook:

(Teacher) Look at the first word, and stand and spell it. (Pupil) b-o-w-l, bowl.

(Teacher) Give me a sentence using the word bowl. (Pupil) I had a bowl of milk.

(Teacher) Next word. (Pupil) c-o-f-f-e-e, coffee.

(Teacher) Now spell without looking at your book. (Pupil spells coffee.)

(Teacher) Give me a sentence. (Pupil) I made some coffee. (Pupil) I grind a cup of coffee.

(Teacher) Class may study words silently. Read them aloud first. (Class reads) Sugar, bowl, dish, pitcher, tea, coffee.

Evidently the author of the spelling book used has made a decided attempt to provide for the correlation of the formal spelling of word lists with the use of the words in sentences, an exercise which needs emphasizing in every school in the country. Children's ability in the first does not necessarily transfer over into the other. A child may spell a list of words correctly and then misspell many of them in his written composition. The teacher's work is only half done when she has given isolated words to her class for a spelling lesson. These words should be used in sentences, and should be incorporated into the pupil's written language work, so that he not only masters the technical difficulty which the word presents but acquires proficiency in its written use as well.

The spelling in the upper grades was only fairly good in the best classes observed; many teachers showed skill in the teaching of the actual lesson in spelling separate words, and in these lessons the children generally spelled correctly; but the spelling did not carry over into their composition writing as it should. This seemed to be due to the limited amount of dictation work and the wholly inadequate amount of written composition, as more fully discussed elsewhere.

The teachers are studying the problem. Tidyman's excellent book on teaching spelling has recently been placed on the teachers' desks. The study of this book by principles as well as teachers will be of great help. It makes extensive discussion of method in this survey unnecessary.

## 6. PHYSICAL TRAINING AND HEALTH EDUCATION.

The need for activities in the lower grades is not yet fully recognized by teachers and superintendents generally in public schools, and the function of these is far from clear to them. To give physical education a place in the daily schedule is a good thing, but unless the director helps to create the conditions by which the work of the school contributes to the children's health instead of impairing it, the work is form rather than substance. Likewise to introduce art is a step in the right direction, but it will do little to further the children's development unless it is so taught that it is an expression of the child's own experience, given in his own way. If the work in each of these lines is under the supervision of a special teacher, and the regular teacher has no voice in determining its relation to the other work of the grade, it can have little value. This seems to be the situation in Wilmington. There are no kindergartens to suggest how these activities should be carried on with little children. The work of the entering children, as well as for all the others in the first and second grades, is a rigid course in the three R's.

Upon this the courses in physical education, art, music, and nature study have been superimposed, each independent of the other work of the grades. Whether the work given under the name of physical education is contributing anything toward the children's health is decidedly open to question. Out of a 5-hour daily session, 15 minutes are allowed for it in the schedule. A portion of the 15-minute recess, morning and afternoon, is also devoted to it. In so limited a period but little could be done even under more favorable conditions. Rooms crowded with seats afford opportunity for little else than formal gymnastic exercises. The work observed in 10 or more different buildings and 20 different rooms, consisted of little else, although the ages of the children ranged from those just entering to those in the fourth grade. In a few cases this was done to the music of a piano or victrola.

In three or four rooms a freer form of exercise was given which was decidedly better. The children were formed into a circle around the seats and played such games as Mulberry Bush, Looby Loo, and Round and Round the Village. In another the teacher asked some child in each row to name an animal. All the children in a row designated then ran around the room until they came to their seats again, representing in some way the actions of the animal named. Each row did this in succession. The games played at recess were similar to those mentioned. Each teacher was held responsible for her own group with the younger children. With the older ones the boys on the one side of the building and the girls on the other played games requiring more skill. One playground was equipped with a slide which was greatly enjoyed. The boys in another had organized into a volley ball team, and had furnished their own equipment.

That this work has value can not be questioned, but the benefit in the direction of building up the children's health is more than offset by other conditions. The children spend 15 minutes a day in gymnastic exercises, 30 more in the recesses, and in most cases 15 more in writing at the blackboard. They are thus on their feet and active one hour out of the five-hour day. The remaining four hours are spent in sitting, most of the time held in rigid attention to the lessons in reading, spelling, phonics, arithmetic, etc. This is a condition that should not be tolerated, since all authorities agree that children from 4 to 8 years require much physical activity, and that their health is of necessity impaired if this is withheld. This is a condition that needs remedying.

This condition can be considerably relieved, even under the many unfortunate limitations as to suitable buildings and overcrowded rooms under which teachers labor through no fault of their own.



by introducing many games, especially devised to be played in a schoolroom with fixed furniture. A number of good books giving detailed descriptions of these games can be got. A short game of three or four minutes should be played, as a rest and for recreation, at the end of every lesson in the grades. It would more than make up for the time devoted to it by arousing increased attention in the succeeding lesson.

The system of gymnastics introduced only this year is that known as the Swedish. It is so well known that it needs no description here. It is one of the systems widely in use. There are differences of opinion among competent experts as to its merits as compared with other systems, and criticism would be out of place here. Suffice it to say, however, that the general, and we might say the whole, trend of the best thought on physical education is that free play, supervised in a way not to interfere with spontaneity, is a better form of exercise than any system of gymnastics; and the judgment of experts is virtually unanimously in favor of substituting free play for formal gymnastics wherever possible. There are those who even question the need of formal gymnastics for corrective work.

In the Wilmington schools there was no provision for physical education until this year. The introduction of this system is therefore a distinct gain. The course also recognizes in a small degree the function of games. The teachers conduct outdoor games, but sometimes only formal gymnastics, at recess time. But the unfortunate thing in Wilmington is that few schools have playgrounds that are at all adequate.

The responsibility for this condition rests primarily upon the taxpayers, and is a part of the larger problem of replacing the many unfit school buildings with new ones.

#### THE PROGRAM OF HEALTH CARE AND EDUCATION.

A brief study was made, during the survey of the Wilmington public schools, to ascertain to what extent a program of health care and education was functioning. As no time was allowed in the regular school day for health teaching, those courses in which it might function were looked into very carefully.

In the primary grades (to the fourth) "incidental teaching," planned by the principal, in which "health talks" are given by the classroom teacher the last period on Friday afternoons, was described by the superintendent of schools. No demonstration was witnessed, but a number of teachers were interviewed upon the subject, and the textbook used as reference examined. Having no specific program outlined and being reserved for the last period in the school week, when in the very nature of things children are restive and lacking in concentration, it is hardly likely that "health talks" based upon

facts in a primer written in 1910 would arouse interest in either teachers or pupils.

From the fourth to the sixth grades, inclusive, hygiene and physiology are taught in the usual formal way. A satisfactory text has been adopted, although at the time the classrooms were visited individual teachers had not yet been supplied with copies.

In the high school a personal hygiene and home nursing course is open to seniors, but is not obligatory. It is given after school hours by a representative of the American Red Cross. A similar course, taught by the home economics teacher, is also to be given in the senior year as part of a course in household arts.

#### AN EFFECTIVE LESSON.

A commendable treatment of health considerations was observed in a fifth-grade class in citizenship. The topic under discussion was, "Why is Wilmington a good place in which to live?" During the period many aspects of the topic were touched upon; important matters concerned with the health of the individual and with the city as a whole were given particular emphasis. As a means of visualizing the environs of the city, and in particular the system of protection afforded the water supply, an excursion had been made by the class to the watershed, the race, and the filtration plant, and a spirited discussion of the trip brought forth many interesting points, each child contributing something. Following this, the milk supply, sewerage system and disposal plant, garbage collection and disposal, good roads, clean streets, and other means of maintaining the health and comfort of Wilmington citizens claimed, for a brief period, the attention of the class. The fact that spontaneity was encouraged, that the teacher expected to be convinced by the class that Wilmington was a good place in which to live, was stimulating to the pupils and created an atmosphere of real interest.

There are great possibilities in work of this character for health teaching, and when the "health talks" given in the primary grades and the kindergarten are supplemented by a vitalized daily practicing of health habits, children in the grades from the fourth up will understand that the soundest basis for good citizenship is good health. They will understand, too, that the surest way to attain and maintain health is to practice early in life good health habits.

#### SCHOOL LUNCHESES.

A hot midday lunch is available for pupils in the high school only. It was good to know that neither tea nor coffee could be purchased by pupils, and candy only after luncheon has been partaken of.

The lunch service will be considered elsewhere in this report, but it may not be amiss to urge the installation of a hot school lunch in

all elementary and grammar schools. - Certainly the condition of the children would seem to warrant this step. scrawny legs and arms being much in evidence among the children seen. The value of this service as an educational factor is now undisputed, and as a means of demonstrating the food facts presented in class offers endless opportunities.

#### MEDICAL SCHOOL INSPECTION.

An official medical and nursing service was initiated by the city board of education of Wilmington the latter part of 1919. Prior to this volunteer organizations and individuals had for four years done such preventive and corrective work in the schools as was possible under the existing circumstances.

The present staff consists of the medical inspector, on a part-time basis and two nurses on full time. It is the desire of the department to keep medical inspection on the plane of teaching and examining alone. A morning was spent with the staff when it was stated the usual procedure, with the exception of weighing and measuring, was followed.

After a considerable wait a line of children began to file in the room for inspection, no attempt being made to separate the child being inspected from those who were waiting. The two nurses were in attendance, one doing the clerical work, the other directing the children to the physician from the room and assisting generally.

In general the inspection consisted of a good examination of the mouth, throat, and neck (although no digital examination was made to determine the presence of adenoids); no examination made of the nasal passage; an occasional one (without a speculum) of the ears, and a superficial examination of the extreme upper part of the chest. In the majority of cases carious teeth were noted and the child told to go to the dentist.

One pair of scales was all that were available for the entire school system, and as it is a policy to weigh and measure children once a year at the time of inspection this pair is sent from place to place as needed. Although ordered to be on hand for use the morning in question they did not arrive, and therefore no weighing and measuring was done.

Weighing and measuring would seem a superfluous process anyway so long as the theory is held that a thin, wiry person will be equally healthy with the fat, heavier person. It is true that the "general appearance and behavior of a child" is often indicative of his state of health. However, the most eminent pediatricists now lay more stress upon weight in relation to the height of a growing child, plus his regular gain in weight, than upon any other one factor.

The percentage of malnutrition now thought to prevail throughout the United States among school children is from 20 to 33½ per cent. Of the 4,335 pupils examined in Wilmington last year, 17 only were classed as malnourished, for Wilmington a percentage therefore of three-tenths of 1 per cent. In the two months of the 1920 term no cases of malnutrition had been reported by the medical inspector.

Besides assisting with the inspection of pupils (testing sight and hearing), the nurses visit the homes to interpret the need for correction of defects and, where necessary, to assist families in need of the same to establish contact with agencies providing institutional, dispensary, or economic care.

It is apparent the staff is devoted and interested, and with certain changes the service could easily become a potent influence.

It would be necessary first of all that the service be recognized at once as an important department of the school system, to which regular time should be allotted. On the morning the inspection was observed there was a delay of about an hour and a half because it was thought advisable not to disturb the regular school or classroom routine.

At no time can an inspection be made without some interruption of the day's usual procedure, and the most efficient system is one which does not permit the time of any school official to be wasted. When a physician is on a part-time basis this point is of particular importance.

#### GENERAL RECOMMENDATIONS.

1. A graded plan for teaching health should be outlined and made a required part of the school curriculum from the lowest grade to the last year of high school, inclusive. The establishment of health habits should be the purpose of such a course, and particular care should be taken to vitalize the teaching method so that the child's interest will be sustained throughout. For instance, with the youngest children the element of play and action should be used as a definite means of interesting children in health; toothbrush drills and songs, story telling, freehand cutting, and the making of attractive and varied colored posters are all valuable. As the children advance in the grades, the further development of health plays and establishment of health clubs should be featured. The spirited way in which the fifth-grade class before referred to entered into and contributed to the discussion is typical of what happens when spontaneity and some freedom is allowed. The formation of health clubs and the selection by them of phases of health work for practice and investigation is an admirable and practical means of making healthful citizens.

2. With the children in the seventh and eighth grades and in the high schools, the period in which hero worship is so usual, interest in an ideal of health may be kept keen and alive through a series of stories and dramatizations of lives of men and women who have contributed so much to the progress in matters of health conservation and disease prevention. Such geniuses, for instance, as Pasteur, Trudeau, Lister, Koch, Grenfell, Florence Nightingale, Madame Curie, Walter Reed, and others preeminent in their profession could well be brought to the attention of the children.

3. The working out of any course in health teaching should involve the cooperation of a number of teachers and should extend over a period of at least two or three years. The great possibilities through the correlation of subjects has already attracted the attention of educators elsewhere.

4. Above all, interest in an ideal of health should be maintained through the regular weighing each month and the measuring twice each year of each child. The classroom is the place for the weighing to be done, and the larger the share taken by the children the better. The Class Room Weight Record, with places for the names of 40 pupils, may be procured from the United States Government Printing Office. That each child may know what relationship his height-weight bears to the normal average, a weight-height table has been made a part of the classroom weight record, and each child is supposed to keep his own record, which, by comparison with a classmate's, creates friendly rivalry. A child is more ready to correct his own bad food and health habits when he learns through observation that it is the latter which is keeping him scrawny and pale, and usually rendering him unable to compete with more normal children.

Every school should be supplied with scales, and the report of the child's progress in weight be sent home each month with the report of his progress in other matters. To initiate and direct the weighing of children each month may seem at first only an additional burden, but teachers have been the first to appreciate that knowledge of weight-height relationship and its bearing on general fitness creates a new and stimulating atmosphere among children formerly indifferent to appeals for the formation of good health habits.

5. A hot school lunch in all primary and elementary grades should be installed, the educational aspect of which is of far greater importance than the feeding of hungry children.

6. Supervision of the course in health education is of prime importance, and by an individual with creative and imaginary ability as well as with special preparation and understanding of the purpose of such a course.

7. Until the medical inspector is put upon a full-time basis and given a salary commensurate with the requirements of the work, more time than is now given to the inspection of children can not be expected. Until a full-time basis is provided for it is suggested:

That the inspection of children be limited to the examination of skin of face and hands, examination of the throat, teeth, ears, eyes, glands of neck, and of posture and gait. That just prior to the day on which the inspection is to be made the nurse and teacher decide which pupils seem to require a thorough examination and that the parent or parents be asked to be present when the examination is arranged for. That during inspection or examination children be dealt with individually, and where a separate room is not provided a screen should be used and the child assured privacy during the interview. That the height-weight relationship be recognized as a significant means of determining the general nutrition of children, and the latter be informed in this department of the relationship. That the nursing staff be increased, preferably by a supervising nurse and one capable of contributing materially to the development of a program of health education. That the present scale of salaries be raised and that the nurses spend more time in classroom demonstrations. In order to accomplish this, one nurse only should assist with the inspection or examination of the children.

8. That a dental clinic be provided for at once within the school domain, and that dental hygiene be a definite part of the health teaching.

#### SUMMARY.

The schools should be supplied with scales.

Each school day health teaching should be recognized as an obligatory part of the day's work.

A hot school lunch should be made available for every child in Wilmington who needs it.

Correlation of subject and cooperation of teachers should be sought in rounding out the program of health education.

The present medical and nursing service should be enlarged and its scope broadened.

Health should be made a positive and desirable thing and not dealt with from the negative angle.

The main purpose of a graded plan for a course of health education should be constantly the promotion of health as something desirable and possible of attainment.

#### 7. DRAWING.

At the close of the school year in June the supervisor of drawing resigned, and a successor was appointed who had begun work only

a little over a month before this survey was made, and had consequently not had sufficient time to make such changes as she may have had in mind. The following comments and suggestions are based on the tentative course of study which the new supervisor has prepared and which has been issued to the teachers in mimeographed form and on the work in the schools as observed by the commission.

This tentative course, issued, as it states, as a "Suggestive Outline for Teachers," is only for the months of October and November; the outline for the remaining months of the year had not been issued at the time of the survey.

The course as a whole is based too much on the old formal conception of art instruction, and fails to recognize the children's native interest, as all good teaching must; in short, it is too severely logical, as determined by the nature of the subject, instead of psychological, as determined by children's interests and capacities. This is particularly true of the lower grades. Some of the work is beyond children, such as the characteristics and processes of fixing and glazing of clay in grade 2.

There is an entire absence, both in the course of study and in the actual teaching in the first three years of the schools, of the drawing from imagination which children love to do to illustrate the stories told them and to picture scenes which they have observed. These drawings are spontaneous expressions of their native interest and occupy a prominent place in good primary schools. There is little trace in the course of a recognition of the results of the study, from a psychological standpoint, of children's capacity and native interest in drawing. A discussion of these studies can be found in a number of books, readily accessible, such as Sully's *Studies of Childhood*, and Barnes's *Studies in Education*. But by far the most extensive of these studies are Kerschensteiner's and Lobsien's, which, unfortunately, are not translated.

The course, so far as it has been issued, does not provide sufficiently for the coordination of drawing with the other subjects of the curriculum except nature study. The course, fortunately, is not prescriptive in regard to method except in so far as formal work calls for formal methods in teaching it, and this is actually the result as observed in the schools.

The consequence is that there is very little free expression in drawing anywhere in the schools. The same lack of spontaneity and freedom of expression, as more fully stated elsewhere in this survey, was found in the language teaching throughout the schools. This shows that a fundamental change in conception of teaching on the part of teachers and supervising staff in regard to the character and function of expression is necessary. In drawing, as in language,

the improvement in technique must come from an effort to express more adequately and clearly what is in the mind; it must not come merely from formal instruction in details of technique apart from content.

As the course now in force was prepared only for the two months stated above, it is impossible for the commission to make as helpful suggestions on it as a whole as would be desirable.

#### TEACHING OBSERVED.

The ideals and spirit of the kindergarten ought to permeate the primary grades in school, not only in art training, but in all other subjects; the method must be adapted to the children of these early grades.

The equipment of the kindergarten includes sand, clay, blocks of different shapes and sizes, and paper of different kinds, so that children may first experiment with and then express their ideas through these materials as mediums. It is by objectifying such things as the main parts of the home and its furniture, the store and its food content, and the garden in which the fruits or vegetables grow that children gain a conception of the purpose of human life and activity and of their place in the scheme of things.

If the work of the school is to be thus vitalized, it needs more than the one medium, drawing and crayon work, to accomplish that purpose, and whether it does so will depend in large measure upon the selection of subject matter to be represented and the method of carrying it out.

The work in drawing observed in the Wilmington schools seemed poor, but it was difficult to see enough to make a correct estimate because it occupied so small a place on the program. About 50 or 60 minutes are given to it per week, but this was usually concentrated into two or perhaps three lessons, given on alternate days. The work referred to below was observed in seven different buildings, and covered the first, second, third, and fifth grades. The lessons related to the season but had no relation to the other work being done in the grade. They were not therefore expressions of the children's thought or experience. Colored crayons were used in all cases but one, in which water color was used. The objects drawn were a pumpkin, a fence with jack-o'-lanterns on the posts, a cat-tail with leaves, red and green peppers, a dahlia, and an autumn landscape. Drawings on exhibition indicated that the children had also drawn and cut apples, potatoes, and bananas.

#### METHODS IN DRAWING.

The preparation for the work on the part of the teachers was systematic and careful, but the methods used were poor on the



whole. The object was not present in all cases, and in but two was any study made of the object to help children to note its characteristics before the drawing was begun. One of these was the drawing of two peppers, one red and the other green, in a 4B class. Some attention was called to the shape of the peppers, and the children then made their own representation of it. This was followed by a discussion as to whose drawing was the best, and why. The other lesson was the painting of a red dahlia in a 5B class. The flower was fastened to the board. Attention was then called to the shape of the flower and the proportion between it and the stem. The children then painted the flower as they thought it looked, and criticized their own and their neighbor's results. The work was somewhat crude in both cases, but the method was good because the children were led to observe for themselves, to express their own thought, and to estimate for themselves the worth of their own and others' work. This would stimulate them to like observation in the next lesson, and an effort to improve upon their previous work.

In the other cases the children were either shown or told just where, when, and how each line was to be drawn, or the teacher herself made a drawing of the object which the children copied. In one case the object to be drawn in a 2B class was a cat-tail with two leaves. The teacher tacked both cat-tail and leaves to the black-board in a parallelogram that served as a frame. She began in the right way by calling the children's attention to the long stalk of the cat-tail, and the proportionate length and difference in shape of the leaves. Instead of then giving the children the chance to see how well they could make a picture of it, she drew another parallelogram, made a picture of the cat-tail and leaves in it, showed the children exactly where and how to make a picture exactly like the one she had made, and made no further reference to the real object that had been presented to them to draw.

A lesson in a 1B class in which the children made a fence with posts and jack-o-lanterns on the posts was carried out in the same way. In a 3B class a pumpkin was drawn from a form that the teacher had cut out, without any effort to have the children recall how the pumpkin really looked. She pointed to the ribs running from the stem to the blossom end and called them lines of growth.

In a 5A class the children were given a lesson on how to draw a landscape. The teacher drew a horizontal parallelogram on the board and told the children that she was going to draw a scene for them, something that she saw. She said that the first thing she saw was the sky, and the first thing that she was going to draw was the line where the earth and sky meet—the horizon. She added that artists made this line uneven to make it prettier, and she was going to do the same. She continued by saying that she saw some bushes,

the moon just rising, corn shocks and pumpkins, a fence in the foreground, etc., showing them just how to make each as she proceeded. When the picture was completed she erased it and told the children they might make one like it, or another such as they themselves might see. The children's pictures made a fairly good showing, but their method of work raised the question as to whether the idea of the sky line as a fundamental factor in a landscape, or that of distance as affecting the size of objects, had been worked out from actual observation. If not, the lesson had no real value, since it did not lead children to see and express ideas for themselves.

#### AN APPRAISAL OF THE ART WORK.

As far as the work observed was an index of the art work in general it must be rated as barely fair, and that in the first two or three grades distinctly poor, in at least three respects.

The first is that the work done is unchildlike and has no foundation in children's life interest and experiences, and no relation to the other work of the grade. The drawing exercises were set lessons injected into the other work without organic relation to it. In consequence the conditions for real art work were lacking.

The second respect in which it is poor is that it is far too limited in scope. Young children need experience with several different media. They need clay modeling, painting, and cutting as well as drawing, and also paper folding and construction work. The last-named work appears in the course under the heading of "Industrial art," but no trace of it could be found in the daily schedule of the schools, and none was discovered in progress.

The respect in which it is the weakest of all, however, is the method. Real art is the expression of thought by means of a medium—in this case, clay, paint, or pencil. The first effort must therefore be directed toward helping children to see an object clearly; the second to expressing what they see in their own way. If the expression is poor, it is either because the children have not observed the object carefully enough, or because they have not yet learned to use the medium—clay, paint, or pencil—correctly. A more careful examination of the object is therefore the first step toward the improvement of children's work; instruction in the use of the clay, paint and brush, pencil and paper, or scissors is the second. The Wilmington teachers devote almost no attention to having the children observe the objects to be drawn, and would take the children to task if they indulged in any freedom of expression. There were many good drawings pasted in the different rooms, but the basis upon which they were judged was the success with which the children had followed the teacher's directions, or the nearness of their approach to the

teacher's copy. Individuality is evidently an unappreciated and therefore an undeveloped characteristic.

Children's spontaneous drawings already referred to have received much attention at the hands of educators during the last few years, and art courses have been revised in accordance with the suggestions obtained from them. Not one such drawing was observed in the Wilmington schools. Many blackboards had friezes of childlike pictures at the top made by the teachers, but there was nothing truly expressive of child life by the children. The only instance of children's initiative observed was the decoration of a blackboard by ears of corn suspended from the top at intervals and alternating with autumn leaves and jack-o'-lanterns which they had cut out. The art work, like the reading, will need to be recognized as a means to an end instead of an end in itself before it will truly function in the school system or in the children's lives.

Drawing, although coordinated with nature study, is not used effectively as a means of observation, as a means of concentrating the pupil's attention on the salient features to be observed. The observation is too much taken for granted and the drawing taught as if it had for its only function to express what had been observed out of school. This was the assumption of drawing teachers more than a generation ago, but is not now. To draw an object once fixes its appearance in the mind better than mere looking can, provided the drawing is based on actual observation and not on directions as to technique given by the teacher, or a model drawn by the teacher. It is for this reason that copying of pictures is so valueless an exercise in school.

In the upper grades the drawing is not used for illustrative purposes in the other studies to the extent desirable.

The artistic quality throughout the schools is distinctly below that of good schools. The whole subject requires the attention of the supervising staff. Much help could be got from courses of study and samples of children's work from progressive schools in which drawing is well taught, such as the Washington Irving High School and the Ethical Culture School in New York, and the public schools of such places as Brookline, Newton, and Springfield in Massachusetts, and Indianapolis, Ind.

## Chapter II.

### SECONDARY EDUCATION.

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#### 1. THE HIGH-SCHOOL PUPILS.

In every community the high schools and private academies are, and since their earliest beginnings always have been, the most important means of selecting and training the youth who have the best capacity for leadership.

Persistence through high school requires certain minimum amounts of ambition, intellectual capacity, industry, earnestness, physical vigor, and general competence, which, taken all together, constitute a character that is considerably above the average. Also the ability of parents to support their children through 12 years of education, and their willingness to do so, implies an economic status and an amount of foresight that are greater than the average. Thus we usually find in almost every community that the leaders, with few exceptions, are graduates of secondary schools.

Since a democracy can maintain and perpetuate itself only through the development of wise and sane leaders, and correlatively through the development among a majority of the people of the ability and disposition to choose their leaders wisely and to support these chosen leaders in their public acts and policies, it follows that the community is more fundamentally and vitally concerned in the business of education than in any other business in which any or all of the citizens are engaged. If the knowledge and the training for leadership that are being handed on to the rising generation by our schools and colleges should decline or fail, our entire economic system would soon become disorganized and would fall into decay. It should be clear, therefore, to the citizens of Wilmington that a well-balanced and intelligent support and control of both elementary and secondary public schools is absolutely essential to the economic life of the community as well as to its growth in those social and spiritual elements that make a community a fit place in which to live.

In every complex community such as Wilmington, made up of racial and other groups, with various kinds of endowments and diverse personal and group interests, each group finds within itself a few leaders whom the others follow. The things which the groups strive for, their ideals and objectives, are determined largely by the character of their leaders. If the leaders in the various masses of men and women who together constitute the citizenry are moderate,

wise, mutually conciliatory, and actuated by a common good, the city itself is bound to be p If, on the other hand, the group leaders are s unintelligent, then bitterness, strife, and turmoil, will result.

In all our cities the high schools, however imperfect have proved themselves an effective agency for automatic ing and bringing together for mutual contact and a common the youth of all classes and of both sexes who have capacity, leadership. So also they have proved themselves not only potent giving these boys and girls, through literature, history, science, and art, and through the opportunity for democratic contact which the schools afford, a knowledge of the world's best thought and achievement, but they have also proved themselves effective in inculcating the highest ideals and conceptions of democracy. Hence the urgent need for the adequate support of these institutions. In respect to this field of enterprise and endeavor Wilmington must not fall behind.

#### THE STATUS OF SECONDARY EDUCATION IN WILMINGTON.

For secondary education the city supports the Wilmington High School for white children and the high-school department of the Howard School for colored children. In October, 1920, these schools enrolled, respectively, 1,307 white children and 104 colored children, or a total of 1,411. The total population of Wilmington is reported as 98,000 whites and 12,000 colored, or a total of 110,000. If these reports are substantially correct, there are in the public high schools 12.8 pupils for every 1,000 persons of the total population. In the Wilmington High School there are 13.3 pupils per 1,000 of the total white population and in the Howard high-school department 8.7 pupils per 1,000 of the total colored population.

These ratios afford us a means of comparing this community with others, with reference to the attracting and holding power of its high schools, and the public interest in them. In 1918 for the whole United States, including high schools of all grades, city, village, and rural, there were 15.6 in every 1,000 of the total population enrolled in the high schools, while for the State of California this ratio was 27, and for Kansas 26.5. South Carolina had the lowest ratio, 5.3 per 1,000; while the States of Virginia, Rhode Island, Oklahoma, Nevada, and Texas, ranging from 11.9 to 13.4, were about equal to the city of Wilmington.<sup>1</sup> Wilmington slightly exceeds the State of Delaware, which stands between Virginia and West Virginia, with its ratio of 11.8.

<sup>1</sup> These percentages from U. S. Bu. of Educ. Bul., 1920, No. 19.

cy, even if the present building would properly accommodate all, which is certainly not possible.

The Howard School, moreover, is already overcrowded and is an out building for a school of any sort, not to mention a modern high school.

These facts contribute a danger signal which the city of Wilmington should heed. Immediate action is necessary. In another chapter, dealing with the building program, the survey commission has outlined clearly what must be done to meet the crisis which exists, not only in the high schools but in the elementary schools as well.

#### DO THE HIGH SCHOOLS HOLD THE PUPILS THAT THEY RECEIVE?

The success of a high school in holding its pupils through the four years' course is another measure of its efficiency; for the pupils will not stay unless they and their parents feel that they are getting value received for the time, effort, and sacrifice involved. Also, they will not stay unless they are reasonably successful in the work that they are required to do. Success implies reasonably good ability and preparation in the lower grades; so some must be expected to drop out because they lack the requisite ability and ambition or because of economic necessity, or because of inadequate training in the grades below; but the great majority, who are not thus handicapped, should be expected to persist until they graduate, if the school is offering them what they need and giving it to them under methods of instruction and administration that enable them to carry on their work successfully.

In Table 1, in the Appendix, it is shown what per cent the enrollment of each grade is of the total high-school enrollment in 1920, for each school; and these are placed alongside with percentages similarly obtained for the total high-school enrollment in the United States.<sup>3</sup> We are thus enabled to compare the decrease in enrollment from the lower grades to the higher in the two Wilmington schools with that in the high schools of the country collectively. It is seen that by this measure of the relative number dropping out of school the Wilmington High School makes a much poorer showing than the country as a whole, while the rate of the Howard High School is about the same as that of the country as a whole, excepting in the senior class, whose percentage is raised probably by the accession of repeaters. Such percentages are unreliable anyway when applied to such small numbers of students as are enrolled in Howard High School.

In Table 2, in the Appendix, the enrollments are given for the B and A sections in the four grades from October, 1916, to September, 1920, by half years for Wilmington and by full years for Howard.

<sup>3</sup> Adapted from U. S. Bu. of Educ. Bul., 1919, No. 19.

In the Wilmington High School the enrollments for the ninth grade show an increase for the four years of 50.3 per cent, while those of the twelfth grade, or senior class, show an increase of only 15.6 per cent. Even this gain was due wholly to the girls, for the number of senior boys in 1920 is actually 6 per cent less than it was in 1916. This is indicative of a large amount of dropping out, even though allowance be made for the fact that gains in the upper class enrollments usually lag behind the gains in the lower classes.

The rapid rate at which pupils drop out of school as classes progress through the grades is indicated by the rapidly dwindling enrollments of the three upper classes as we glance down the columns for the successive half years. Looked at in this way, however, the figures appear slightly more unfavorable than they are in fact, because the successive increases in the size of the entering classes make the losses in upper classes appear relatively somewhat larger than they really are.

#### HIGH-SCHOOL CASUALTIES.

To get a more accurate measure of the casualties from year to year and grade to grade we must follow a given entering class through four years and see what happens to it. This can be done with the class, for example, that entered in September, 1916, by inspecting the figures which lie just above the black step-shaped line which runs diagonally down through Table 2. It will thus be seen that this class which started in grade 9B with 251 pupils had dwindled to 44, or 17.6 per cent of its original number, when it had reached the 12A grade in June, 1920. Other classes may be traced in a similar manner.

In Table 3 the same figures are rearranged so that the enrollments of each class in the successive half years of its progress through the grades are placed in the same horizontal line across the page, and under each enrollment is placed the per cent that it is of the number who were in the 9B grade when the class entered the school.

This table does not take separate account of the pupils who fail and drop back into each class from the class that is just a half year ahead of it. There are many of these "repeaters" in each term, from start to finish, and they tend at times to fill up the ranks in place of those who drop out, and thus temporarily to check the descent of the curve of enrollment; but as many of the early repeaters themselves drop out before they reach the upper classes, and as the 9B grade itself always contains many repeaters, the inclusion of the repeaters does not seriously affect the inferences to be drawn from the per cents of persistence as read across the page. In spite of the irregularities probably due to the influx of pupils who dropped out during the war and returned in 1919 and 1920, the decrease in enrollment as the classes progress through the grades is startling. The percent-

ages remaining have been averaged for each grade and placed at the bottom of the table with corresponding percentages for all the high schools of the United States<sup>4</sup> just below them.

Comparing these figures we find that, on the average, out of 100 pupils who enter Wilmington High School in the ninth B grade only 63 reach tenth B, 38 reach eleventh B, 31 reach twelfth B, and 20 graduate. More than half are gone before they reach the second half of the second year, and four-fifths drop out before their class graduates. The per cent persisting to tenth B is one-eighth less than for all high schools in the United States, to eleventh B one-fifth less, to twelfth B one-fourth less, and to graduation one-half less.

The losses for the classes entering in February do not appear quite as bad as they really are, because for these the per cents persisting are based on the enrollment taken in June, instead of February when these classes entered school; and there are always some who drop out between February and June. Hence each of the per cents persisting is larger than it would be if calculated on the February enrollment of the 9B grade as a base, instead of on its June enrollment. The figures for the Howard School are nearer those for the country at large, but are not reliable on account of the small numbers of pupils involved.

It is thus shown that compared with the average of the high-school pupils, city and rural, the country over, Wilmington boys and girls are far behind as to persistence in high school. They do not do nearly as well as the "average American high-school pupil" in sticking to their courses and graduating with their class.

A careful study should be made by the teachers and administrators of the conditions out of which these abnormally large percentages of school mortality come. Such a study should include tables like Tables 2 and 3, made for each of the curriculum groups separately, and for boys and girls separately, in order to determine the particular groups that furnish the greatest number of casualties and on the other hand which courses hold their pupils best. In a similar manner the investigation should get down to particular studies and to individual teachers. Careful records should be kept of all pupils who drop out of school, and the reasons why they drop out should be definitely ascertained and recorded. On the basis of such records, causes for the large casualty lists may be ascertained and remedial measures applied.

#### A STUDY OF HIGH-SCHOOL FAILURES.

In seeking to discover the causes for the phenomenally high elimination rate in the Wilmington High School the survey commission naturally turned its attention to failures, because it is well known by

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<sup>4</sup> From U. S. Bu. of Educ. Bul., 1920, No. 19.



educators that lack of success in school work is the most potent cause for leaving school. Failure causes retardation, and it is the retarded pupils who drop out in largest numbers.

In making our study we were fortunate in finding among the records of the school a complete summary of failures for 1919-20 in each subject, distributed by grades and sexes. From this record, compiled by the head of the science department, we have calculated the percentages of failures in each subject by the girls and the boys in every grade and also the percentages of the total failures in each subject, and have arranged them for convenient inspection in Table 4 of the appendix. By thus reducing all to the common denominator 100, it has been made easy to compare each group with every other group. For the sake of brevity, details are omitted in some subjects where they lack significance because of the small numbers of pupils in some of the groups involved. In these cases only totals are given. By reading across the first line of the table it may be learned, for example, that in English 26 out of 124, or 21 per cent of the girls, and 68 out of 262, or 26 per cent of the boys, in the ninth grade B (or first half year) failed in the work. In the ninth grade A (or second half year's work in the same subject) the failures, though too many, were not so numerous; 25 out of 125, or 20 per cent of the girls, and 35 out of 148, or 14.1 per cent of the boys, failed. In the second year the proportion of failures is still too large in the 10B group; but from that point on to the second half of the twelfth grade or senior year they do not in any case exceed 7 in 100, or 7 per cent. In other words, a satisfactory proportion of those who survive to the beginning of the fourth half year are successful thereafter in meeting the demands of the teachers of English.

For the English department, then, we may summarize thus: There are too many failures in the first three half years of the work, since from 14 to 26 out of every 100 pupils fail; whereas, if things were going entirely as they should go, the failures would rarely exceed 10 or 12 in 100. During the remainder of the course not more than 7 pupils in 100 fail, and the percentage for the junior and senior years is only 3.5, a very moderate proportion.

In this connection, however, it should be noted here and throughout the discussion of failures that, since pupils have dropped out of school all along the line until in the second half of the senior year, more than two-thirds of the class that entered four years ago are gone and that presumably the third or less who remain are the ablest and most persistent, nothing less should be expected than that those who survive the first four of the eight drastic elimination contests should with very few exceptions be able to survive the remaining four. On glancing down the table from English to mathematics we find, in general, that the percentages of failures in the first year

in algebra and in the second year in commercial arithmetic are approximately equal to those in English. These, however, increase through intermediate algebra, plane geometry, solid geometry, and trigonometry, from 29 per cent of all pupils enrolled in the first of these subjects to over 38 per cent of all those enrolled in the last.

When we reach Latin, the next subject in the table, we find that in three of the four years' work the condition with respect to failures is astounding. In the work of the first half year in elementary Latin, the ninth B grade, almost 1 girl out of every 3 and more than 3 boys out of every 5 failed; while for the entire class the percentage that failed is 49.6. Practically 1 out of every 2 of the beginners in Latin failed at the end of the first half year.

The class that was doing the second half year's work, the ninth A grade, did a little better, as they certainly should after somewhere from a quarter to a half of them had been dropped out at the end of the first half year. Of this grade, 27.9 per cent of the girls and 38 per cent of the boys failed, a total of 52 out of 153, or 34 per cent of all. In other words, out of the 50 per cent who succeeded in jumping the first hurdle after a half year's run, 1 in every 3 fell at the second hurdle. Evidently the hurdles are too high, the training too poor, or the runners abnormally weak. Of the tenth B grade in elementary Latin, who presumably were repeating mainly the second half year's work, 50 per cent of the girls and 27.8 per cent of the boys, or 35 per cent of the total, failed. The two repeaters in the tenth A grade and the two in the eleventh B passed. This indicates that after going through the whole of the first year's Latin work once, then through the whole of it the second time, and in some cases through half of it for the third time, all the repeaters pass. Out of all groups who did less than this a third or more failed in the accounting of June, 1920.

In the tabulation for Caesar, or second-year Latin, the percentages of failures are 47.3 per cent and 46.5 per cent, respectively, for the 10B and 10A grades, and the status of the retarded or repeating group 10A, 11B, and 11A is a little better than that of the corresponding groups in elementary Latin. Of all the 191 pupils who studied second-year Latin, 45 per cent failed. Verily Caesar is a conqueror!

When we reach Cicero, the third year of Latin, we find enrolled only 34 pupils in all, 7 of whom are retarded or repeaters, and 10 of whom, or 29.5 per cent, failed. In the fourth-year Latin, or Virgil, class there were enrolled only 24, and only one of these failed, or 4.5 per cent; but before this very moderate rate of failure was attained, approximately nine-tenths of those who had started in with first-year Latin three and a half years and four years before had either dropped the subject or had left school.

In the science subjects there is great variability in the percentages of failures. In "general science" 9B they are 20.4 per cent; in physical geography 9A and 10B, 21.3 per cent and 14.3 per cent; in physics, tenth to twelfth grades, inclusive, 19.7 per cent; and in chemistry, eleventh and twelfth grades, 35.7 per cent—all larger than they should be but in general not so bad as in Latin. In general science 9A they are 10.6 per cent; in physiology, 9B and 9A, 8.2 per cent; and in biology, tenth to twelfth grades, they are only 2.9 per cent.

In the history department the failures have about the same range and characteristics as in the English department. In ninth grade community civics they were 20 per cent for all; in tenth and eleventh grade early European history 25.4 per cent for all. In ancient, in modern, and in American history and civics the percentages ranged from 15.8 for the first down to 7.8 for the last. In the first two and the fourth of these social studies, contrary to their experience in most of the other subjects, the girls make larger percentages of failures than the boys.

The total failures in French, all grades, are 19.8 per cent; in Spanish, 5.8 per cent. In manual training (boys) they were 14.3 per cent in 9A, 13.8 in 10B, 5.3 in 10A. In shop mathematics (boys) they were 9.1 per cent in 9B, none in 9A, none in 10B. In freehand drawing for girls the failures were 14.7 per cent for the ninth grade and 8.9 for the tenth. In mechanical drawing, for boys, the corresponding percentages were 26.2 and 13.8. In domestic science 3.1 per cent of the 9B girls and 6 per cent of the 9A girls failed. There were in this subject no failures in the tenth grades. In dressmaking one out of the six 9A girls failed; while none failed in the 9B and 10B grades or in 10B textiles. Finally, the commercial department registered very few failures. There were none in commercial law, only 2.5 per cent in typewriting, 2.7 per cent in shorthand, and 3.7 per cent in commercial geography, while in office practice the total for all grades was 10 per cent.

#### THE FAILURES ARE ABNORMALLY LARGE.

This analysis of the failures in the school is very illuminating. It shows that with the exception of Spanish, commercial subjects, and household arts, all the subjects as administered by the respective departments are causing abnormally large percentages of failures in the first two years of the curriculums; and that in Latin and mathematics the proportions of failures were so large as to be sensational. In all classes excepting English 10B, 11B, and 11A, algebra 9A, geometry 10B, Latin 10B repeaters, community civics, early European history, modern history, commercial arithmetic, and biology, the percentages of failures for the boys were considerably heavier than those for the girls; but in these classes more girls than

boys failed. In the last two subjects no boys failed; all the failures were made by girls.

It is clearly incumbent upon the administration of the schools to seek out the causes of these large percentages of failures and to adopt measures that will reduce them in the future. Normally the percentage of failure in any high-school class should be expected to fall between 5 and 12 per cent, and if the percentages are above or below these limits a careful study of conditions should be made. A high rate of failures usually means poor teaching, overexacting requirements, too drastic examinations, or a specially unintelligent or ill-prepared class. It may be due to a combination of any or all of these causes. Conversely, a very low percentage of failures may mean exceptionally fine teaching, an unusually able or well-prepared class, a drastically sifted class, or a subject appealing strongly to the interests and needs of the pupils. On the other hand, it may mean that the teacher is too lax in his requirements and too easy in his marking. The supervisors should find out the causes in either case, and should bring the influence of the really successful teachers to bear on the unsuccessful ones.

In the opinion of the survey commission the high percentages of failures are not to be charged to unusual lack of ability or disinclination to work on the part of the pupils. On the contrary, we are convinced by extensive class visitation that they showed themselves to be equal in intelligence to high-school pupils anywhere and more than usually willing to work industriously to meet the demands of their teachers. We believe that the trouble is caused by faults in the methods of teaching, by overrigorous requirements with respect to certain details, and by faulty methods of administering promotions.

We find that (1) all pupils who received a mark of 80 or more for the term's work were promoted without examination, (2) all below 80 were required to take a final examination and were marked "failed" if they did not make 75 per cent or more on this examination. For such pupils the single grade attained in this examination was the only deciding element. (3) Those receiving a term grade of less than 65 per cent were marked "failed" without being accorded the privilege of taking the examination. In our opinion the two latter provisions are manifestly unwise and unfair.

#### A PROMOTION METHOD SUGGESTED.

We recommend the following method of promotion:

1. The teacher's term mark to be based on (a) daily recitations, (b) written tests, at least four per semester, (c) notebooks, library assignments, and project reports. The final semester mark should be one-third of the sum of the averages or estimates for the three terms of work.

2. All pupils standing lower than 80 per cent should be required to take the examination, the final average of such pupils to be determined by adding together the examination mark and twice the teacher's semester mark and dividing the sum by three. The survey staff incline strongly toward the opinion that all who are physically fit should be required to take the final examinations.

3. The teachers should be instructed to the effect that, in general, human ability is so distributed that if 100 pupils receive school marks A B C D E, representing five approximately equal steps from the highest ability to the lowest or complete failure, then the marks A and E should each be assigned to from 3 to 10 pupils, the marks B and D each to from 20 to 25 pupils, and the mark C to from 40 to 50 pupils. The teachers should not be required to force their marks into these ranges against their judgment, but they should understand that if their marks do not fall within these limits they should be able to give good and sufficient reasons for the variations.

The suggested changes in the marking system, together with a thorough discussion of conditions and causes, getting down to the cases of individual teachers and making comparisons of methods and requirements, will, it is thought, bring about a more just administration of promotions. Certainly a school that, according to its own records, can show no better percentages of success by its pupils in meeting the curriculum requirements than has here been shown needs to subject itself to a very thorough self-examination with a prompt reform in view.

As a further contribution toward the solution of the failure problem, the survey commission collected from the teachers individually the records of the enrollments and failures in their classes for June, 1920, and also of the number of repeaters in their classes in September, 1920. From these reports Table 5 in the Appendix has been compiled. This table enables us to compare the failure percentages of different teachers in each of the subjects in which there are several different teachers, namely, French, English, algebra, Latin, and history. We may thus find out whether in a given department including several teachers there is general uniformity with reference to failures, or whether some teachers have a high percentage of failures and others a low percentage. In other words, by means of such a table a given department can find out who is mainly responsible for its proportion of failures and to what degree.

#### NO NORM OF PROMOTION RECOGNIZED.

As to French, the table shows that two teachers who were rated as unsuccessful last year, and who were not reemployed, had failures of 26.6 per cent and 26 per cent of their pupils, respectively, while the other two had failures of 12.7 per cent and 10.5 per cent, respec-

tively. Evidently the excess of failures over the normal in that subject is chargeable almost entirely to these two teachers. In English the percentages of fatalities range from 27.5 per cent down to 2.7 per cent. In this group two teachers who are not now in the school had failure percentages of 18.5 and 17.5, the former above and the latter below the median (17.9 per cent); but both very near it. The variation in these percentages, which is wider than that in French, indicates a lack of coordination in the department as a whole with reference to policies. There seems to be complete lack of agreement as to what should reasonably be expected of high-school pupils and how it should be obtained.

In Latin there is a rather remarkable similarity among three out of five of the teachers with respect to their percentages of failures, all three ranging between 41 and 46. The one having the senior Virgil class, in which there was only one failure, had the lowest percentage (29.6). The next lowest (36.4) is that of a teacher who was considered a failure and was not reemployed. It was explained to the commission that the large percentage of failures in Latin was largely due to this teacher, part of whose pupils were taken over by the others in the middle of the term, but too late to save them. It seems quite clear, however, that this explanation, even if valid for the first-year pupils, does not account for the abnormal proportion of failures made by the second and third year pupils. The absence of failures among the seniors is quite easy to understand in view of the excessive eliminations from the subject that had taken place during the three previous years.

In social studies the percentages of failures range from 21 per cent in community civics by a teacher who was not reemployed down to 15.3 in ancient history. The other three teachers in this department show less variation than those of English and mathematics; but, as in the case of the teachers of Latin, mathematics, and several other subjects, even the lowest percentage of failures among them is larger than it should be. These two tables, 4 and 5, show where investigation should be made. Such tables should be made, studied, and kept on file from year to year, and should be carried to still further detail, so that not only sexes and grades and teachers can be compared, but also pupils who come from different elementary schools and pupils who are in different curriculums. For example, it is obviously of advantage to know whether pupils promoted from the eighth grade in school B do as well as those promoted from the eighth grade of school C, and why; also whether pupils pursuing the classical, or the commercial, or the "general" curriculum, etc., register the greater proportion of failures and eliminations.

Table 5 of the Appendix is very illuminating regarding another point. It shows that in the classes of 11 out of the 29 teachers tabu-

lated, from 10 to 15½ per cent of the pupils dropped out of the subject or left school during the year. Probably most of these if they had remained would have failed and so have made the percentages of fatalities still larger than they are as shown.

Another interesting feature is found in the last column of figures in Table 5, which shows the number of repeaters in the classes of each teacher. With a very few exceptions the number of repeaters amounts to more than 10 per cent of the whole number enrolled. As a rule these repeaters increase the teacher's difficulties in handling the class, for they are likely to be bored and uninterested. In so far as it is possible to arrange for it in the schedule, all repeaters should be segregated and taught in classes conducted with special reference to their needs.

By way of comparing Wilmington with other cities, attention is drawn to the following percentages of failures, the medians for 14 city high schools in New Jersey.<sup>5</sup> In all, 24,895 marks were tabulated. Total failures, 15 per cent; ninth grade, 18.5; tenth, 16.5; eleventh, 7; twelfth, 4.5; all Latin, 18; all mathematics, 20; all history, 11; all English, 11; all commercial subjects, 11. For Wilmington High School the percentages are: Total failures, 23.7 per cent; Latin, 40; mathematics, 22.4; history, 18.3; modern language, 15.2; science, 15.2; English, 15.1.

In the case of Wilmington perhaps the disorganization due to the war conditions, the influenza epidemic, and the more immediate teacher shortage may in part account for the excess of failures; but our study of the data of Tables 4 and 5 does not lend any strong support to this hypothesis. In the Howard High School (colored) no one was either dropped or failed in the classes in science, in elementary drawing and sewing, and in mechanical drawing and shop-work. It was explained that the latter subjects did not count in making promotions last year. In domestic science and domestic art 16.4 per cent and 18.3 per cent were dropped; but none failed of those remaining. In other subjects the percentages of "dropped" ranged from 14.8 down to 12.2, and the percentages "failed" from 21.2 down to 7.2. The teachers in this school have proportionally more dropping out of classes and proportionally fewer failing than those of the other school, and there is a wide variation in different subjects with the same pupils. As in the case of the Wilmington High School, it is recommended that systematic effort be made to arrive at something nearer to a general agreement as to the meaning of school marks, and a better common estimate of the abilities of the same pupils who are studying different subjects.

<sup>5</sup> Ellis, Don C., *op. cit.*, p. 54.

## THE CHARACTERISTICS OF THE PUPILS.

The pupils in the Wilmington High School strike the observer as an exceptionally fine body of boys and girls. They are dignified, well poised, and courteous in manner, and very generally earnest and attentive in the classrooms, as well as orderly in the halls and on the stairways. The boys look well groomed, and the girls are neatly and sensibly dressed. There seems to be none of the tendency toward overdressing and the prodigal use of paint and powder that is so lamentably prevalent among many of the girls in some city high schools. This is creditable to the parents of the girls as well as to the girls themselves.

During two weeks of continuous class visitation not a single incident occurred that should occasion any general adverse criticism of the conduct of the pupils. On the contrary, there was very much in their spirit of loyalty, willingness, and cooperation with their teachers that calls for emphatic commendation. In general, school loyalty and self-discipline are here so well upheld by the traditions and customs of the school that with regard to its general tone and esprit de corps the Wilmington High School may confidently be ranked among the best schools to be found anywhere.

A few discipline cases came to the office during the progress of the survey, as will inevitably happen occasionally in the best regulated schools. These were well handled by the acting principal, and call for no special comment.

There was positive evidence of the regular practice of cigarette smoking in the toilet rooms. A sincere but unsuccessful effort has been made to suppress this practice by close watching on the part of the men of the teaching staff. The commission would suggest that this practice is probably confined to a very few of the boys and can in all probability be broken up entirely by bringing to bear against it the public sentiment of the boys as a body. For this purpose we suggest that a mass meeting be held in which the boys shall be invited to take the matter in hand for the sake of the welfare and good name of the school. Committees appointed by the boys themselves in which each of the seat rooms shall be represented should be requested to meet with a committee of the men teachers and work out a plan for keeping a watch on the toilets, and also for conducting a general and continuous campaign among the boys for discouraging the use of tobacco among themselves and of absolutely prohibiting its use on the school property. Such a plan should include the help of parents to the fullest extent that it can be enlisted.

Like most other things, this is a matter in which the boys can be much more successfully led than driven. They should be assured that, however widely opinions may differ as to the effect of the use



of tobacco by mature men, all authorities agree that its use by growing boys is a handicap to efficiency in every activity that boys prize, and that it works directly against the building of a strong and permanently healthy body. Boys addicted to tobacco should receive the sympathy and moral support of all the other boys and of all who are interested in them, in a determined attempt to break up the habit.

Another objective might well be included in the same campaign—the entire elimination of profanity and vulgar talk. An overwhelming student public sentiment, effectively brought to bear against the use of tobacco and against profane and indecent language, would be somewhat of a rarity among high schools, but certainly something worth a great deal of effort to attain. Why should not the Wilmington High School capitalize its already splendid school spirit for the attainment of such an end?

As with the Wilmington High School, so with the Howard. We were impressed with the general earnestness, dignified bearing, and fine cooperation of the pupils. The new principal is a real leader and is perfecting the organization of the school with ability and understanding. Both pupils and teachers are cooperating satisfactorily with him.

## 2. THE NATURE OF THE HIGH-SCHOOL CURRICULUMS.

Table 6, Part I, describes the amounts of work in each of the several studies of the four older curriculums. These amounts are expressed in terms of a "unit" which is defined as the equivalent of 120 clock-hours of recitation work, two hours of laboratory, shop, or other unprepared work being counted as equivalent to one hour of prepared recitation work. The minimum value of a unit may be provided by five 40-minute recitation periods per week for 36 weeks, or a total of 7,200 minutes. Table 6, Part II, shows for each grade and sex the actual number of periods of work per week that are necessary to fulfill the graduation requirements in each of the curriculums.

The most noteworthy fact revealed by these tables is the rather large quantity of work required of the pupils pursuing each curriculum. This ranges from 19.2 units, or nearly 5 per year, for the classical boys, with an average weekly schedule of 26.4 periods of class or laboratory and shop attendance per week, to 17.45 units for the commercial girls with an average class attendance requirement of 24.9 periods per week. These requirements may be compared with those of the North Central Association of Colleges and Secondary Schools, which sets a minimum of 15 units for admission to college and a maximum of 20 periods per week of class work. A load of more than 20 periods per week is officially discouraged excepting in the case of the most able students physically and mentally.

The survey commission is convinced that for more than half the pupils in the high schools of Wilmington the weekly time-tables are too heavy. We do not believe it possible for the student of average or below average ability to carry successfully such an amount of work. If he has to spread himself over an average of nearly five subjects every day in the week, he is going to spread himself too thinly. We believe that this unusually large requirement is one of the main causes for the excessive percentages of failures and eliminations already noted.

We recommend, therefore, that the graduation requirements in all curriculums be reduced to a maximum of 16 units, exclusive of physical training and inclusive of all other required work. Four periods of prepared work and one of unprepared work (laboratory or shop) should constitute the maximum daily schedule for every pupil excepting those who are exceptionally strong and active both physically and mentally. The latter may be permitted, or in some cases required, to increase their schedules at the direction of the principal and on the recommendation of the heads of departments. To carry out this recommendation it will be necessary to overhaul the curriculums and place in the elective columns some of the subjects that are now in the required columns. A smaller requirement, to be honestly met by thorough intensive work, will, we believe, produce better results than the present requirements have yielded.

As to the contents of the curriculums, we note that (a) each one requires major sequences of courses consisting of not less than three consecutive years of work in at least two lines of subject matter (e. g., English, mathematics), and (b) minor sequences consisting of not less than two consecutive years' work in at least two other lines (e. g., science, social studies).

These two requirements should be preserved in any revision of the curriculums, as they are necessary to conserve the principles of continuity of effort with ample opportunity for breadth of knowledge and training. (c) Each of the curriculums includes at least two units of English, two of social studies, one of which is American history and civics taken in the senior year, one of science, and one of mathematics. This is another principle which should be conserved, since every American citizen ought to have at least this minimum of training in these fundamental fields of knowledge.

#### SUGGESTED REVISIONS OF THE CURRICULUMS.

The commission is opposed to the use of the term "classical" for the Latin preparatory curriculum, as tending to give it an air of aristocratic distinction which does not intrinsically belong to it. Latin-scientific is hardly a characteristic term for a curriculum which offers only three years of science when the so-called general

curriculum offers four; and the term "general" is rather derogatory any way. A curriculum offering four years of history and four years of science is deserving of a more dignified name.

The requirement of three years of French in addition to four years of Latin for all students in the classical curriculum does not seem wise. It seems certain that for many pupils it would be more profitable to substitute historical and scientific studies for three out of the seven units of foreign language. Again, although it is undoubtedly very desirable that all boys should get some training in manual arts and mechanical drawing, and that all girls should have some training in home economics and art, we can not think it wise to make these absolute requirements because of the inevitable overloading of the schedules of many pupils who are not able to carry so much work successfully. We therefore favor making these courses elective, and spreading them over a four-year period instead of a two-year period.

Throughout all the curriculums there should be a change in the organization and selection of the subject matter, and also in the methods of teaching, with the aim of making the studies more practical, more closely related to daily life problems. In other words the curriculums need to be vitalized along modern lines, by the use of the inductive approach, the project and problem method, and the socialized recitation, by constant comparisons and contrasts with present-day conditions, events, and relations, and by organizing the materials with special reference to the interests and needs of the various groups of pupils. With a view to stimulating a complete overhauling of the curriculum offerings in order that the school may provide adequately for the interests and needs of all its distinctive groups of pupils, we earnestly suggest the following as an ultimate aim:

*Suggested curriculum.<sup>1</sup>*

Subjects.	College preparatory.	Commercial.	Industrial.	Household arts.	Music.	Art.
English.....	3 or 4	2 or 3 or 4	2 or 3	2, 3, or 4	2+1 or 2E	2+1 or 2E
Mathematics.....	2, 3+1E	3 4	2 or 3+1E	1, 2, or 3E	1, 2, or 3E	1, 2, or 3E
Social studies.....	2, 3, or 4	2, 3, or 4	2, 3, or 4	4, 3, or 2	2, 3, or 4	2, 3, or 4
Science.....	4, 3, or 2	1, 2, 3, or 4	4, 3, or 2	2, 3, or 4	4, 3, or 2	4, 3, or 2
Foreign language.....	4	0 or 2	0 or 2	4	2 or 4E	2 or 4E
Physical training.....	4	4	4	4	4	4
Commercial studies.....	1E	4	0	-----	Sociology III E or Economics IV E	Sociology III E or Economics IV E
Shop and mechanical drawing.....	2E	1 or 2E	4	-----	1, 2, 3, or 4E	1, 2, 3, or 4E
Household arts.....	2E	1 or 2E	-----	4	1, 2, 3, or 4E	1, 2, 3, or 4E
Art.....	2E	1 or 2E	2E	2 or 4	1, 2, 3, or 4E	1, 2, 3, or 4E
Music.....	2E	1 or 2E	2E	2 or 4	4	1, 2, 3, or 4E

<sup>1</sup> The Arabic figures in the columns represent the number of units that may be taken in each line of subject matter by option or election. E means that the subject is to be elective in the curriculum where this symbol is used, and in general taken extra only by students who are able to carry extra work.

<sup>2</sup> Commercial mathematics.

<sup>3</sup> First year mathematics.

Curriculums similar to those that for the sake of brevity are here presented in skeleton form are outlined in full, and are described at length and justified, in Chapter II, part 2, of the report by the survey commission on the *Public School System of Memphis, Tennessee*, U. S. Bureau of Education Bulletin, 1919, No. 50. Space limitations forbid the introduction of this extended discussion into this report. It must suffice to make a few brief comments only. Those desiring to have the arguments are referred to the Memphis report.

The college preparatory curriculum can be arranged through options between various lines of study in the various years (as indicated by the alternative numbers of units in the outline) so as to provide for admission either to any arts college or any technical or engineering college.

The proposed commercial curriculum is not made up of college preparatory studies mainly, with the addition of shorthand and type-writing, bookkeeping, and a little penmanship and spelling, as is the case with that now in use at Wilmington and widely prevalent elsewhere. It is made up of important commercial studies together with sequences of cultural studies that are most important to a business man or woman. Like the remaining four curriculums recommended, it calls for as much effort and is educationally just as respectable as the college preparatory curriculum. There should be no invidious discrimination in favor of the latter as against any of these. Such discrimination is productive of great harm, since it tends to draw from the others into the college preparatory curriculum many pupils who will never go to college. Many of these not only fail in it because it does not appeal to their interest, but also they lose the opportunity of pursuing studies which would be of very great benefit to them in direct preparation for the vocations which they will follow after leaving high school.

The proposed commercial curriculum in the first two years presents the studies which are most useful and most necessary to a considerable number of pupils who will drop out of school at the end of the second year. It is believed also that a certificate should be given such pupils who complete these two years creditably. We believe that this practice would not only not diminish the losses, but would result in gains in this curriculum in the two upper years. Many who would be attracted at first with the idea of a two years' course would become interested in what was beyond and would make a greater effort to stay and finish.

The proposed industrial curriculum should appeal strongly to many boys who intend to go directly into the productive occupations of industry, just as the commercial should to those who intend to follow mercantile or office occupations.

The suggested household arts curriculum is intended to appeal to those girls who can not hope to go to college or who do not care to do so. It provides a good practical and cultural education for the woman citizen.

In every large city there are considerable numbers of both boys and girls who manifest strong interest in music or art, and wish to make one or the other of these either their vocation or their main avocation. The music and art curriculums here suggested are intended to meet this need, and at the same time to provide as good an all-round education for useful citizenship as can be obtained in the four years of high-school attendance.

In the sequence of mathematical studies we recommend not more than a year of algebra for all excepting the boys who are preparing for technical and engineering colleges. For the latter a year and a half should be sufficient. The third half unit, when taken, should come in the second semester of the third year, after solid geometry. Trigonometry should follow these, and should be elective.<sup>6</sup>

The sequence of social studies should run as follows: Ninth grade, advanced community civics; tenth, modern history; eleventh, American history; twelfth, problems of democracy. In the case of pupils preparing for college where ancient history is an absolute requirement the latter might be made optional with problems of democracy in the twelfth grade.<sup>7</sup>

The science sequence recommended is as follows: Ninth grade, civic biology; tenth, general geography; eleventh, physics; twelfth, chemistry. "General science" should be pushed down to the seventh and eighth grades, where it is more appropriate to the pupils' needs and will reach a greater number.

In the third year there should be a special course in household physics and chemistry, which girls might choose instead of the college preparatory physics; and there should be special courses in applied physics and applied chemistry for the boys in the commercial, industrial, art, and music curriculums. These courses should be based on the simpler physical and chemical problems that arise in the local industries of Wilmington. For the household arts curriculum there should be provided in the twelfth grade a course in dietetics, care and feeding of children, first aid, and nursing.

The sequence of commercial mathematical studies recommended is ninth grade, commercial arithmetic and elementary bookkeeping; tenth, bookkeeping and office practice; eleventh, costs and contracts, salesmanship and advertising; twelfth, auditing, banking and finance, and insurance and investments.

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<sup>6</sup> See Memphis Survey Rep., pt. 2, Ch. 11, pp. 132-135.

<sup>7</sup> *Ibid.* pt. 3, "Civic Education."

The sequence of special commercial studies recommended includes ninth grade, stenography and typewriting; tenth, stenography, type writing, and use of office appliances; eleventh, office and factory management, personnel work, and elementary business law; twelfth, economics. The commercial department should train future sales people, office managers, secretaries, advertising managers and credit men, as well as stenographers, typists, and bookkeepers. These courses will give the necessary foundation for jobs that lead up to such activities.

The shop and drawing sequence recommended is ninth grade, mechanical drawing and woodwork; tenth, drawing, and cabinet making or wood turning and pattern making, bench metal work or sheet metal work; eleventh, forge work, foundry practice, or drawing and machine shop; twelfth, machine drawing and machine shop.

For the household arts sequence we recommend ninth grade, foods and cooking (3 days), textiles and sewing (2 days); tenth grade, foods and cooking (2), textiles and sewing (3); eleventh grade, dressmaking and millinery; twelfth grade, household management, housewifery budgets and accounts, and laundry.

For the art sequence and a full discussion thereof see the Memphis Survey Report, part 2, pages 149-52; and for the music sequence see the special chapter on music in this report, and also the Memphis Survey, part 5, pages 38-49.

It is the opinion of the commission that the art department of the Wilmington High School—if, indeed, it may be called a department—is not functioning effectively. We could not find in the school any evidence of an intelligent educational policy with respect to this important field of culture, or any conclusive evidence that the accepted modern theories and methods of teaching the principles of drawing, perspective, color work, and design are understood and used. In fact, we are convinced that for the elementary schools and both high schools art instruction must be built from the ground up on an entirely different basis from that which obtains at present.

We have made no attempt in this place to examine critically the household-arts curriculum now in use, or the cooperative industrial curriculum. The former of these, for some reason or other, is not taking hold of any considerable number of girls and is not taking the prominence in the school that such a curriculum should take. We believe such a curriculum as has been suggested would do so if the school authorities would get behind it and back it in the whole-hearted manner that they ought to. Discussions of both of these fields of work will be found in the special reports of this survey on home economics and on vocational education, Chapter III.

## WHICH CURRICULUMS ARE MOST POPULAR?

Table 7 of the Appendix reveals many interesting facts with regard to the curriculums now in use in the school, because it admits of making comparisons in many different ways. It tells, for example, that the Latin scientific curriculum draws the most pupils, probably because of its name, although it offers less science than the "general," which stands fourth in the list. The Latin scientific enrolls 30 per cent of all the pupils, the commercial comes next with 29.1 per cent, the classical gets 24.9 per cent, the general 11.2 per cent, the cooperative industrial 2.5 per cent, and the household arts 2.3 per cent. In the general and the Latin scientific, which offer the most science, the boys outnumber the girls more than 3 and 4 to 1; while in the commercial and classical the girls outnumber the boys nearly 3 to 1. It is perfectly clear that Wilmington boys want science, and that they can not or will not master Latin according to present arrangements. They should be allowed a college preparatory course with four years of science and with French instead of Latin, as our suggestions provide. The table shows for every curriculum that the boys have relatively a smaller enrollment in the senior class than the girls have. Evidently with the present organization and teaching methods the school is more successful with girls than with boys in all curriculums. A further study of this and similar tables, to be kept and analyzed from year to year and compared by years one with another, is recommended to the teachers by the survey commission.

## 3. THE TEACHERS AND THEIR WORK.

## THE QUALIFICATIONS OF THE TEACHERS.

The teaching staff in the Wilmington High School consists of 17 men and 37 women; that of the Howard High School of 4 men and 7 women.

The accompanying analytical table shows, for each school and for each department, how the teachers are distributed with reference to sex and college training. It will be noticed that in the Wilmington High School the men are better trained than the women. Eleven out of 17, or 64.7 per cent of the former, hold degrees from standard colleges; while only 15 out of 37 of the latter, or 40.5 per cent, hold such degrees. Three of the men and one of the women hold master's degrees, and one of the men has both the B. S. and C. E. degrees, representing more training than is required for a master's degree. Two of the men and the woman holding master's degrees are heads of the departments of history, English, and Latin, respectively, making 3 out of the 8 heads of organized departments who hold an ad-

vanced degree. Advanced degrees are held by 5 teachers in all out of the 54. In the Howard High School only 1 out of the 4 men, the principal, is a college graduate; but 5 out of the 7 women hold the bachelor's degree. These are the teachers of English, mathematics, Latin, modern language, and domestic science. In the Wilmington High School the Latin department is the only one in which all the teachers are college graduates, and history comes next with 4 out of 5, while mathematics makes the poorest showing, with only 1 college graduate out of 8 teachers. The English department makes the next poorest showing, with 4 college graduates out of 10 teachers. Mathematics and Latin are completely feminized. There is not one man among the 13 teachers of these two subjects.

Table 8 of the Appendix shows for the two high schools how the graduate and nongraduate teachers are distributed with regard to the number of years of training that each has had beyond the elementary school. Of the 7 holders of normal-school or short-course diplomas (13 per cent), the extreme limits are 5 and 8 years and the median is between 6 and 7. Of those who hold neither degree nor diploma (38.9 per cent), the number of years of training beyond elementary school ranges for various individuals, from 2 years up to 11 years, with the median between 4 and 5. This is the equivalent approximately of a high-school education plus 1 year of normal school or college. The training of these noncollege graduates has been gained in a great variety of ways, such as by Chautauqua reading circle work, correspondence courses, business and art schools, extension courses, "private study," lecture courses by college teachers, and by regular university summer term work for which standard credits were obtained. The professional records of all but the latter class were difficult if not impossible to evaluate with accuracy. They indicate in general, however, that in the cases of about half of the teachers who have not had the advantage of regular college training there has been a commendable effort toward continuous and systematic growth in scholarship. The most notable exceptions are the teachers of manual arts in the Wilmington High School, who in their reports to the survey commission have shown no evidence of any attempt to get higher training during 30 or more years of service. Such a record is not creditable to them nor to the school. In contrast with these, note the record of the Smith-Hughes industrial teacher who reports 11 years of training since entering high school as a student in 1904, has taken the B. S. and the C. E. degrees from Delaware College, a certificate from Michigan College of Mines, and is now attending regularly at the University of Pennsylvania, working toward the M. A. degree while carrying a heavy schedule of teaching.



*Status of the high-school teachers of Wilmington as to college graduation.*

Schools and training of teachers.	Men.									Women.									
	English.	Mathematics.	Latin.	Modern language.	Science.	History.	Commercial science.	Manual training, drawing, gymnasium.	Total men.	English.	Mathematics.	Latin.	Modern language.	Science.	History.	Commercial science.	Household arts, art, gymnasium.	Total women.	Total men and women.
<i>Wilmington High School.</i>																			
With college degrees	2	.....		1	3	3	1	1	11	2	1	5	2	2	1	....	2	15	26
Without college degrees		.....					2	4	6	6	7	....	1	2	1	2	3	22	28
Total.....	2	.....		1	3	3	3	5	17	8	8	5	3	4	2	2	5	37	54
<i>Howard High School.</i>																			
With college degrees	1	.....							1	1	1	1	1	.....			1	5	6
Without college degrees		.....			1	1		1	3					.....			2	2	5
Total.....	1	.....			1	1		1	4	1	1	1	1	.....			3	7	11

\* Principal; does not teach.

The professional record blanks, filled by the teachers, called for brief statements as to the extent of professional training in psychology and pedagogy, as to special training in the subjects they were teaching, as to professional reading (both books and magazines), as to membership in educational associations and attendance at educational meetings and conventions, and as to other means of professional growth, such as travel, etc.

The answers given are too varied and complicated for successful analysis and tabulation within the space and time limits set for this report, but would make an interesting exhibit. In general they reveal a rather remarkable amount of reading, study, travel, and attendance on professional meetings. With only a few exceptions the reports indicate that the Wilmington teachers are alive and growing professionally; a fact which reflects credit both on the professional spirit and attitude of the teaching staff and on the administration. However, it should be noted that the pedagogical studies of the teachers have not very generally carried over into their teaching to the extent of modernizing their methods thoroughly.

This condition calls for more active organization and leadership of the teachers by the supervisors and heads of departments. Study clubs should be organized for investigation and discussion of the special problems with which the school, the departments, and the individual teachers are confronted. By thus setting up specific purposes for the study of pedagogical writings, such for example as the

solution of problems raised by the findings of this survey, such study clubs, together with more suggestive supervision of class work, would insure the application in the classrooms of the principles learned in the pedagogical books.

Since the high schools of Wilmington make a very poor showing with regard to the percentages of their teachers who are college graduates, particular attention should be given to directing the private study of the teachers in such a manner as systematically to make up for this deficiency. Also the policy of appointing none but college graduates with at least 11 semester hours of professional pedagogical training to fill vacancies when they occur, or in the engagement of additional teachers, should be rigidly adhered to. In connection with future appointments the commission has another recommendation to make, namely, that only men be appointed to fill new positions, or to fill vacancies that may occur, until the number of men and of women on the staffs of the high schools are equalized. Care should be taken, of course, not to take on men of inferior personality or qualifications. The influence of more vigorous, progressive, and scholarly men is needed in the school, but it is more difficult to get such men as teachers than it is to get capable and scholarly women. Hence school boards must be on their guard against overfeminizing the schools.

#### POLICY REGARDING SALARIES AND EXPERIENCE.

Table 9 of the Appendix shows how the high-school teachers are distributed as to salaries and years of experience. One may see at a glance, that nearly all of the teachers are experienced, and that a third of them are veterans of long service and mature years. Fortunately, most of these have not lost the sympathy for youth and the enthusiasm for the work that is characteristic of successful teachers of from three to five years of experience. Too often these youthful qualities are lost by teachers who have given very long service, and the usefulness of such is seriously impaired.

The salaries, as shown in the table, are in general fairly liberal. They represent a very material increase over last year's salaries. Even more liberal provision will have to be made for holding young teachers of high qualifications and superior training in the present condition of supply and demand. In the not very remote past the salaries were parsimonious, considering the wealth of Wilmington. It is gratifying to observe a change in attitude with regard to the support of education. This table shows a general tendency to grade salaries according to length of experience only; although it will be noted that in each salary class the college-graduate teachers have had considerably less protracted experience than the noncollege graduates. This, so far as it goes, represents a wise discrimination

in favor of better preparation for the work. A similar tendency is shown in the choice of heads of departments, those chosen for these positions, with two exceptions, being among those who have had the most training. Three out of the four persons holding master's degrees are department heads.

The commission recommends that a salary scale be worked out which shall include four or five classes, promotion from class to class to depend on measured efficiency and definite accessions to professional growth, as well as on original preparation, experience, and willingness to cooperate. In the lowest class, which should be regarded as probationary, salaries should be advanced only on special recommendation. In the other classes, salaries should advance by automatic annual increments to a fixed maximum for each class. All noncollege graduates, excepting always the person of unusual ability, should be stopped in the second or third class. Only college graduates having done work equivalent to that required for a master's degree and having special qualities of leadership and efficiency should be placed in the highest class. Promotion from any class to the next higher should require formal action of the board of education pursuant to recommendation from principal and superintendent. Such a scale, with the lowest salary at \$1,350 to \$1,500 and the highest at \$3,000, should enable Wilmington to compete successfully with other cities for the best teachers. With generally higher salaries should come more rigorously exacting requirements for qualifications, and also for effective teaching service. For the details of such a salary scale the reader is referred to Chapter VI, page 242, of the Report of a Survey of the School System of the Territory of Hawaii, U. S. Bureau of Education Bulletin, 1920, No. 16. Methods of rating teachers are described in *School and Society*, Volume IX, June 21, 1919, pages 748-756, and in Strayer and Englehart's *The Classroom Teacher*, American Book Co., 1920, page 57 ff.

#### ARE THE TEACHERS OVERWORKED?

It is a well-known fact in engineering that an engine or other mechanical device works most efficiently and lasts longer when worked at a certain optimum load. If habitually overloaded, it wastes power and wears out quickly. If underloaded it also wastes power, and furthermore it wastes a part of the interest on the capital invested in it. Although teachers should never be classed with machines, in most matters they are subject to this mechanical law; and it is therefore important for the administration of a school to know whether any of the teachers are underloaded or overloaded, and to adjust the schedule so as to equalize burdens as nearly as circumstances admit.

The survey commission made a study of the loads in pupil periods per week carried by the high-school teachers of Wilmington. If a section of 25 pupils engaged in classroom recitation, or in laboratory work, or in directed study-recitation work, occupy the time and efforts of a teacher for 5 recitation periods (usually of 45 minutes each) per week, the teacher's load from this source is  $25 \times 5 = 125$  pupil periods per week. Similarly, if the same teacher has a section of 20 pupils occupying 7 periods per week, this class adds  $20 \times 7 = 140$  units to his load. His total teaching load is the sum of the loads due to each of his class sections. To find the total scheduled load we add to the teaching load one-half the number of pupil periods devoted to supervising undirected study in the study hall, seat room, or the library. This is done on the arbitrary assumption that such work, requiring no outside preparation, requires on the average about half the energy consumed in teaching a class.

A teacher having 5 class sections each for 5 periods a week, averaging 25 pupils to a section, has a teaching load of 625 pupil periods per week. This is as heavy a total schedule load as ought to be placed on any teacher of English or science, if the administration desires to get the best quality and quantity of work out of him or her. Teachers of English have heavy burdens of examining themes and notebooks, which must be carried by each of them if their work is to be effective. Teachers of science also have regularly much notebook work which it is ruinous to neglect; and in addition they must prepare demonstration experiments and must care for and set out apparatus and material for the individual laboratory work of their pupils. A great amount of repair work and stock keeping is also done by every competent science teacher. For teachers in these departments more than 625 units should be considered an overload.

For teachers of other subjects an addition of 350 units of study-hall supervision is certainly the upper limit that should be considered in making a time schedule for the school. This would be the equivalent of policing the study hall for 5 periods a week with an average attendance of 70 pupils. Adding half of this to 625, we have a total schedule load for such a teacher of 800 pupil periods, which should be the upper limit for any teacher. A majority of the high-school teachers in many of our cities are loaded year after year by more than this amount, but the inevitable result is deterioration in the quality of the teaching and loss of buoyancy and ability to inspire pupils. The tendency of overloaded teachers, no matter how ambitious and sincere at first, is to slip into a rut and follow the line of least resistance. They gradually lose enthusiasm and get into the habit of driving their pupils instead of leading them. An overloaded teacher can not long retain the qualities of initiative and originality;

and, furthermore, his scholarship and professional growth inevitably becomes atrophied.

Two teachers in the Wilmington High School have teaching loads between 950 and 1,000 units, and two have total schedule loads within the same range. One has a total load of over 1,000. The median teaching load is 680; that is, the loads of half of these 43 teachers are greater than this and half of them are less. The median total scheduled load is 710; but 13 of the 43 teachers, or 30.2 per cent, have total scheduled loads of 800 units or more. Six teachers have recitation loads of less than 500 units, and four teachers have total loads of less than that amount. On the face of the schedule, then, it would appear that nearly a third of the teachers are overloaded and about a seventh are underloaded. As a matter of fact, however, nearly all the teachers carry heavy work and responsibilities outside the time schedule. Nearly all of them do more or less coaching of backward pupils or absentees outside the classroom hours. Nearly all of them report three or more hours per week of clerical work in the keeping of records and averages, sending reports to parents, and the like. A few report from 10 up to 15 hours. In the cases of these, however, with one exception, examining notebooks and papers is probably interpreted as clerical work, while most of the teachers must have included such work under preparation for classwork. Moreover, nearly all the teachers have pupils studying in their rooms while they are conducting recitations; and they are responsible for the order and application of these pupils. While there are some teachers who can carry on this function without loss to the pupils doing classroom work, and without any serious nervous strain, there are many more to whom it proves to be a serious burden. Many of the teachers also have duties connected with the supervision of pupil organizations and activities outside the classrooms which require thought and planning as well as control and direction. In a big school all these things make demands on loyal and enthusiastic teachers which add much to their labors, and which are a very important part of the socializing work of the school.

Most of the teachers, and especially the heads of departments, are overloaded with work and responsibility. This becomes further apparent when it is known that the number of teaching periods for 34 of the teachers is 6 per day, or 30 per week. For one science teacher the number is 36, and he teaches physics and chemistry and coaches athletic teams every day till dark. The teacher of penmanship has 31 periods, 3 teachers have 28, 2 have 26, 2 have 25. Six of the department heads have 20, with total schedule loads ranging from 368 to 450, coupled with supervisory responsibilities, lunch-room and hall supervision and the like, while of the 2 who have lighter schedules 1 assists largely in general as well as departmental

supervision and the other does much clerical work, which he estimates at 15 hours weekly. Most of the lighter loads outside the department heads result from smaller enrollments in the classes rather than from fewer classes per week.

The wide variations in the scheduled loads are in many cases equalized to some extent through the distribution of work outside the schedule, but the equalization thus brought about is by no means complete. It might be made more so by a redistribution, with the aid of a tabulation, of the work loads of the individual teachers. However, although approximate equalization of loads is desirable in the interest of fairness as amongst individual teachers, the action called for is more radical. If the school is to be put on a basis of real modern educational efficiency, all the teaching loads excepting those of a very few of the teachers must be reduced. This should be apparent without further comment or explanation. The corollary to it is that more teachers must be added to the corps.

In considering the arduousness of their work it should never be forgotten that teachers, no less than their pupils, must study and prepare for their recitations and plan their lessons daily. Also they must have time outside school hours for physical exercise, recreation, social contact, and mental and spiritual refreshment.

In general, the heavier the teacher's schedule of school work the more preparation it requires in order to be effective. A teacher having a 6-period schedule needs to give 20 per cent more time to preparation than is necessary for a teacher with a 5-period schedule, and has 45 minutes more taken out of every day. So the teacher who needs the most time for preparation has the least time to give to it.

In order to learn how much time the teachers devote to direct preparation for giving their lessons, and to work of a clerical nature, each was asked to estimate the average number of hours per weeks which he or she was accustomed to give to these two kinds of work. It was found that 5 of the teachers give less than an hour a week to lesson preparation; and of these, 4 give less than an hour a week to clerical work, while the fifth gives between 5 and 6 hours per week to clerical work. The median amount of lesson preparation is approximately 8.5 hours per week. Half the teachers give less than this amount, and half give more. The median amount of clerical work is 4 hours per week. Half the teachers do less, and half more than this. If the teachers' estimates are near the truth—and we can see no reason why they should not be—it must be apparent that 4 teachers are wholly neglecting a very important part of every teacher's duty, and they have for company a number of others who are not much more conscientious than they.

The work schedules and loads of these teachers should be looked into, and also their methods of work, their percentages of elimina-

tions and failures, and their records of professional training and professional reading and study. It is perfectly possible for the supervisory officers of a school to get all this information about individuals of the teaching staff, and take such measures as may be necessary to stimulate greater and better directed activity where such stimulation is needed.

An effort was made to ascertain the amount of time the majority of the teachers give to lesson preparation and clerical work. Much of the hardest and most important work of the conscientious teachers is and must be done outside the recitation hours. The evidence points strongly toward the conclusion that many of the teachers find it necessary to take so much time outside the scheduled school hours for daily lesson preparation and clerical work that some of it must come off the time that every person should give to exercise, recreation, and sleep. Such a condition does not make for fresh, buoyant, and inspiring activity in the classroom. By lightening the scheduled class work of the overburdened and overworking teachers through additions to the teaching force, as we have recommended, the administration can place itself in a position to require and obtain more inspiring types of teaching than are common in the school. Each teacher should have one or two periods in the daily time table in which he or she is free of other work, to be used in lesson preparation, reading of notebooks and themes, and the like. The members of the survey staff are strongly of the opinion that lightening the teachers' loads, together with more careful and intelligent supervision and with a reconstruction of the examination requirements, would result in a very gratifying reduction of the disconcerting percentages of failures and eliminations to which attention has been drawn in another section of this chapter.

#### ARE THE RECITATION SECTIONS TOO LARGE?

Another important phase of school administration affecting the efficiency of the teachers and the benefits from the instruction received by the pupils is the size of the recitation sections. From the blanks which the teachers were requested to fill out we should have been able to obtain the total number of class sections and the number of pupils enrolled in each. Unfortunately there were a few teachers who, either through lack of understanding or through negligence, did not properly fill in their blanks with the complete and simple numerical data that were called for relative to this part of our study. However, we are able to show in Table 10 the distribution according to numbers of pupils enrolled in them, and also according to departments, of 292, or about 90 per cent, of all the class sections into which the pupils are divided; and this is a large enough proportion of them on which to base valid conclusions.

From this table it will be seen that 51.3 per cent of the sections in Wilmington High School have enrollments of between 20 and 31 pupils or are within reasonable limits for both economy and efficiency. Thirty-five sections, or 12.6 per cent of all, have enrollments of more than 30 pupils. Eleven, or 4 per cent, enroll fewer than 10 pupils; and 42, or 14.4 per cent, enroll between 10 and 15. Thus, 53 sections, or 18.1 per cent, are too small for reasonable public economy, and 12 per cent are too large for reasonable efficiency. Between 15 and 21 pupils are enrolled in 17.8 per cent of the sections. Sections of this size are more favorable for educational efficiency than those enrolling larger or smaller numbers, but are obviously, on the average, only two-thirds as economical as those enrolling from 20 to 30. Excepting in gymnasium work, sections of 31 or more pupils, although they reduce per capita costs, ought not to exist at all; and in many kinds of physical training also they are too large to be handled with satisfactory results.

It should be quite clear even to the casual reader that with an otherwise adequate teaching force, the presence of every very small section must be provided for by assigning to it from one-fifth to one-sixth of the time of one teacher. According to the present time schedule, with an \$1,850 teacher each pupil in a section of 25 gets from the public funds approximately one twenty-fifth multiplied by one-sixth of the \$1,850 salary of this teacher, transmuted into the form of instruction, or he gets the instruction equivalent of \$12 a year in this one subject. Similarly each pupil in a section of 5 gets \$60, while each pupil in a section of 35 gets one-seventh of \$60, or \$8.57. This is a very inequitable distribution of public funds, since it discriminates against the pupils in the large sections and in favor of those in the small ones. Small sections necessitate extra teaching force or else they necessitate a compensating number of oversized sections in which the pupils get less individual attention than they should, and by which the teachers are overloaded, so that none of their pupils get as good instruction as otherwise they would. These facts lead to the conclusion that neither undersized nor oversized sections should be made where it is possible to avoid them.

It is rarely feasible to eliminate entirely, in a progressive school, sections of undesirable size; but since Wilmington High School has 18.1 per cent of its sections undersized and 12.6 per cent oversized, such a condition calls for careful study of the organization and curriculum, to the end that these sections, amounting to almost one-third of the whole number, may be reduced, if possible.

In a large school it is usually easy to dispense with oversized sections, if the teaching force is sufficiently large. Small sections are more difficult to deal with, because they usually occur in subjects that are taken by very few pupils. Such are the upper classes



in modern languages, and the classes in manual training, household arts, and some of the commercial subjects. In considering such subjects four pertinent questions should be asked and answered:

1. Is the subject important enough, from the standpoint of the community and to the few pupils who take it, to justify its retention in the curriculum at the per capita rate of expense involved?

2. Can the small class be eliminated by giving the subject only in alternate years and combining in it the pupils of two contiguous grades?

3. If the subject is one in which it is economically and socially important to have pupils trained, is it not possible by pressure and publicity or by curriculum requirements to get more pupils to take it and so fill up the small sections?

4. If the subject is one, like Latin or French, that runs through three or four years of the curriculum, are the upper classes being cut down by too many failures and eliminations in the lower years of the curriculum?

These questions themselves suggest the possible remedies for the prevalence of so many small classes; and in the Wilmington High School the commission believes it possible to eliminate a good many of them. Every small class eliminated, except by the method suggested in 3, opens the possibility of eliminating one or more of the oversized classes through distribution.

In the Howard High School there are no oversized classes, but about 85 per cent of the 59 sections are undersized. Owing to the small total enrollment of the school, only a few of these can be eliminated under present conditions; but the question may well be raised as to whether this school should offer two foreign languages. French might very well be eliminated, as the children in this school are likely to have little or no use for it. History and civics, including the simplest and most important phases of economics and sociology, are vastly more important to them, and if as excellently taught as the Latin and French are would be vastly more important to the pupils who do not go to college. We believe also that the vocational work of the school should be expanded to include short, intensive courses in the higher trades that are open to colored boys and girls, but we are heartily in sympathy with what seems to be the firm opinion of the most influential colored people, that, no matter though it be expensive to do so, the college preparatory curriculum, which is now the only one offered in the school, should continue to be maintained in the best possible state of efficiency for those who have the ambition and capacity to profit by a college education. Colleges should take students having had four years of earnest and thoughtful work where they find them, and give them the training they need most. If this were done then, it is clear, a better high-

school training could be given than that afforded by the narrow college preparatory course now given.

Whatever the ultimate solution of the race problem, in the South and in the North as well, it is certain that it must be worked out largely through the cooperation of the leaders among the various races. Hence the importance to Wilmington, as for every city where considerable numbers of colored people are found, of seeking out those among them who are endowed with the best intelligence and seeing to it that they have every possible encouragement to complete a course of training in college. At the same time the great majority of them, who will not desire to go to college and who would not profit by it if they did so, should have the very best training it is possible for them to take and for the public to give, in citizenship and vocation.

We believe that if stronger courses in history and civics, in science, in literature, reading and speaking, in music, in manual and domestic arts, and in intensive vocational training were offered, and if the school were housed in a modern, commodious, healthful, and attractive building, with the teaching all as good as the best that is now done in the school, the colored young people would flock to it in much larger numbers, and that these would be able to get broader and better training than the present pupils are getting, and at no greater per capita cost. The outlay would be returned to the community in large dividends of loyalty, industry, skill, and patriotic devotion on the part of the colored population.

Wilmington is doing far better than many communities in the education of her colored children, but she is yet very far from doing all that it would be to her best interests to do.

#### ARE THE METHODS OF TEACHING EFFICIENT AND MODERN?

Every one of the 64 high-school teachers was visited at least once while teaching. Most of them were observed twice, and some three or four times. Notes were taken on the observations made. By means of careful and attentive class observation an attempt was made to get a general estimate of the character of the teaching in each department and to note special points of merit or special defects in the instruction.

In addition to classroom observation the commission prepared a special questionnaire asking the teachers about their aims, purposes, and methods of teaching, about the needs of the school and of their departments, and calling for suggestions for the good of the service.

From the observations of class work, from a careful perusal of the answers to the questionnaire, and from considerable informal conversation with heads of departments and teachers, the commis-

sion is of the opinion that the Wilmington High School teachers with few, if any exceptions, are conscientious and industrious in the prosecution of their class work. The great majority of them strongly emphasize their desire to train the pupils to be efficient, broad-minded citizens, with the ability and will to serve unselfishly the community, State, and Nation. They want their pupils also to become clear-thinking and cultivated individuals capable of earning their livelihood in some useful vocation and also capable of appreciating literature, art, and science. They want them to be strong, healthy, and happy. It is not possible to doubt that they are sincere, and try to realize these ideals in their contact with pupils both in and out of the classroom. The generally dignified behavior and air of loyalty and responsibility which we have noted on the part of the pupils must, we believe, be largely owing to this devotion of both teachers and administrators to these ideals.

With very few exceptions the teachers express or show that they desire especially to make their instruction thorough and effective. They are thorough and methodical in trying to get the pupils to do their work. The methods in a majority of the departments are mainly very good; and the teachers get very generally good responses and good lesson preparation from their pupils to much more than an average degree.

If we were to classify the school, aside from the commercial, manual training, and household arts departments, as a college preparatory high school of 20 years ago, we might also classify it as an excellent school; but standards and ideals for public high schools have changed during the past 20 years very materially. While the Wilmington High School has apparently steadily improved with reference to better work along the lines of the secondary education of the last decade of the nineteenth century, the general development of the school, most of the methods of all the teachers, and all the methods of some of the teachers are somewhat lacking with regard to the modern spirit.

The socialized recitation, in which the pupils themselves are trained by practice to carry on active and orderly discussions of live problematic questions, in which each one takes part while the teacher keeps in the background as referee and director, is very seldom used.

New topics and principles should be approached inductively through the discussion of many simple, concrete cases from which the principle or law in question should clearly emerge so that the pupils may be able to grasp it and state it themselves in their own words. The inductive approach is very seldom employed. No single case of its skillful use was observed.

In almost every class observed it was noted that there was less use than is needed of such visual aids as maps, charts, pictures, diagrams, lantern slides, specimens, models, and apparatus for making the ideas concrete. Even where such materials were in the rooms they were not used on frequent occasions where they would have aided greatly in vitalizing the instruction and the study of the topic in hand.

The modes of teaching, though mostly thorough and exacting, and generally fairly methodical, were often inclined to be dry and uninteresting. Too much stress is laid on exact and formal abstract statement and too little on the practical applications of the principles and their bearings on human life and activity. A generalization becomes real and intelligible to the individual only to the extent that he has direct personal experience with the practical cases in which the principle applies. Otherwise, it is for him nothing but a series of meaningless words.

There is too much of driving and too little of stimulating and inspiring. Skills, memory connections, and habits are formed by drill, repetition, and practice. Thinking power is developed only by practice in thinking resulting from being confronted time after time with questions of a problematic nature. These must be made to appear in such a form that the active desire to solve them comes from within the pupil, and not because of pressure from the teacher. The cases where it was evident that the teachers thoroughly understood this principle and were acting in accordance with it in the conduct of their instruction were rare. Drills and memorizing may be made intensely interesting when conducted according to methods clearly pointed out by modern experimental and educational psychology, and problematic questions always appeal strongly to pupils if not too difficult and if put in such a way as to appeal to their immediate interests. It is necessary, however, that teachers clearly understand the distinction between these two kinds of mental activities and differentiate their methods accordingly.

We found indications here and there of the use of the project method, but no general sympathy with it among the teachers, and nothing in the way of a systematic attempt to organize projects in the different studies and try them out. The project method is psychologically right in principle and can be put into practice at least to a limited extent in every study. In schools thoroughly pervaded with the modern spirit, at least some project work is being assigned and successfully used in most of the subjects. We agree with some of the Wilmington teachers who say that the project method is often either so overworked or so unintelligently worked that it does not prove as effective as the old and tried methods of book teaching,

yet we hold to the firm belief that it is right in principle, is successfully used by many teachers, and that its unsuccessful and faddish employment by some teachers is no argument against its intelligent and judicious use by others. We urge a careful and watchful trial of it by all teachers, and believe that if so tried it will prove to be of great assistance in vitalizing and motivating the work.

We believe that much better results could be attained if every teacher would make out a brief but carefully written plan for every lesson. Most of the lessons observed were not as systematically planned as would be desirable; and the opinion was reached that this feature of the teachers' work in preparing to give their instruction is not being done with habitual thoroughness. We recommend careful study in departmental study groups of lesson planning, questioning, and technic, and greater attention to lesson plans by the department heads.\*

In this connection the teachers should strive to arrive at a better organization of the lesson material, a more systematic use of visual aids and reference books, and a better distribution of time among the various lesson topics according to their relative importance.

Improvement in these important factors of giving a lesson can rarely be made without the habitual use of written plans. We are not contending for a slavish and mechanical following of the plans after they are written. Occasions often arise in which a wise teacher will depart from his plan or vary it considerably to meet a special situation which arises; but in general, plans should be adhered to in their main lines pretty closely, for this is the only way to secure methodical, unified, and well-proportioned instruction.

We should have been pleased to note more asking of pertinent and thoughtful questions by the pupils themselves during the recitations. Pupils in the habit of doing good thinking are often moved to ask such questions, and their occurrence in a class is indicative that the teacher is both stimulating thought and encouraging inquiry. A skilled teacher will usually put the pupil in the way of answering his own question, and will do it in such a way as to encourage him to open his mind freely in the classroom and reveal his difficulties. Every such question brought up by one pupil is likely to be helpful to other pupils who have the same or other difficulties in mind. Furthermore, pupils are much more apt generally to be interested in a real live question asked by one of their own group than in one asked by the teacher; and finally, such questions are very valuable to the teacher in helping him to get the points of view and sense the difficulties of the pupils.

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\* Loose-leaf books of plan sheets especially designed for the use of high-school teachers can be had on the market.

Other things that we should have been glad to note more of are appeals to individual initiative and originality, and judicious, discriminating commendation of individuals when they do some piece of especially thorough or especially thoughtful or skillful work. Discriminating approval and commendation tends strongly to call out originality and stimulate individual initiative. On the other hand, expressions of approval, if indiscriminating and too frequent, are likely to have no effect one way or the other.

The commission is of the opinion that disproportional stress is placed on college requirements and traditional methods of teaching aimed at college examinations. College preparation is only one of the many functions of a modern high school, and it should not be allowed to dominate the methods of instruction to the detriment of the great body of pupils who will never enter college. The effect of the overshadowing college influence is most evident and most detrimental in the departments of English and mathematics. It also shows itself in the tendency to require foreign language study of many pupils who will have little use for it and less success in pursuing it. The history department also suffers because of the disproportionate emphasis placed on ancient history as compared with modern history, civics, and the problems of democracy. This same attitude is tending to formalize the methods in physics and chemistry.

Finally, it has what we believe to be a harmful influence through the general attitude of the teachers of the college preparatory courses. Without, perhaps, meaning to do so they are producing the effect of erecting the so-called college preparatory studies, and especially Latin, into an aristocracy of learning and creating the impression that those who are not interested in this study or are not successful in it are inferior to those who are. This can not but have a harmful effect on departments and studies such as history, civics, science, literature other than prescribed college classics, household arts, manual arts, and fine arts. As long as the pupils in the curriculums that are not primarily college preparatory are made to believe that they are getting a kind of training which is regarded as inferior to that given by the college preparatory subjects, it will never be possible to get them to use their very best efforts in the pursuit of their studies.

Let it be understood that no one subject or group of subjects monopolize the possibilities of mental training and culture. Culture is inherent in all good teaching and all good study, no matter what the subject matter may be, so long as it be significant and useful in modern life in a democracy. Let the teachers of all subjects seek to make their pupils realize to the fullest this ideal, and allow no invidious distinctions on the ground of tradition; and probably more en-

thusiasm for study and greater respect for all worthy intellectual achievement will result.

It is believed by the survey commission that an earnest effort on the part of the teaching staff to modernize and vitalize the curriculums and the methods of teaching will not cause deterioration in the large proportion of good and thorough work that is now being done, but will result in a freshness and enthusiasm that will make for further success, and tend to reduce very materially the eliminations and failures. In this connection it is urged that a careful study be made of Ch. II, part 2, of the Memphis Survey Report, Bulletin, 1919, No. 50, of the U. S. Bureau of Education. (Superintendent of Documents, Government Printing Office, Washington, D. C.)

There is much in this chapter on secondary education that will be of direct and helpful interest to Wilmington High School teachers and supervisors. The same is true of parts 4, 5, 6, and 7 of the Memphis report, treating, respectively, of science, music, industrial arts and home economics, and health work, and especially of part 3, on civic education. All of these sections of the report contain suggestions which would be directly pertinent to conditions in Wilmington, but which space and time limitations render it undesirable to discuss at length in this report.

It is a matter of regret to the surveyor that the limitations of time and space prohibit description of some of the many examples of especially good methods that were observed. Some phases of method were observed in both the high schools of Wilmington which are equal to the best seen anywhere. On the other hand, there were observed examples of certain faults of technic which are too prevalent in all high schools, which it would have been profitable to point out for correction, but which happily are much less common in this school than in many others. These are described in the Memphis report referred to above.

#### ARE THE TEXTBOOKS THE BEST THAT CAN BE HAD?

The textbooks in many of the subjects are modern and among the very best of their class, but there are some books in use of which this can not be said. Certainly the textbook in every subject should be the best that can be had, the one best adapted to the needs of that class so far as the persons in the system who are best qualified can determine it. No other consideration than the best interests of the pupils should enter into the choice of textbooks, and the teachers who give the instruction with their aid should have some voice in deciding which books they shall use. From the cautious and guarded references to textbooks by some teachers we infer that they have been allowed to have little or nothing to say in the choice of the tools of

instruction which they are required to use. We hope this inference may prove to be incorrect; but if it is correct, the method of adopting texts should be revolutionized and placed on a more democratic basis. If there is in the high schools any teacher who is incompetent to render an opinion that is worthy of consideration concerning the choice of the textbook or visual aids that he or she shall use, then that teacher should be dropped from the list. On the other hand, if teachers are so competent, then to ignore them in an important matter which so immediately concerns their efficiency is a tacit snub, even if not so intended, and they ought not to submit to it in silence.

#### 4. ADMINISTRATION AND SUPERVISION.

##### ARE THE HIGH SCHOOLS WELL ORGANIZED?

The present administrative personnel of the Wilmington High School consists of eight department heads, one of whom is the acting principal, an office secretary, and a stenographer-clerk, who is also a part-time substitute teacher. The principal of the school, who is a veteran in the service, recently became broken in health and is now unable to carry on the functions of his office. The fact that the administrative machinery of the school was running with well-oiled smoothness in his absence, with no signs whatever of disorganization, is a tribute to his ability as an organizer and inspirer of loyalty, cooperation, and devotion to duty. The splendid school spirit of the pupils and their ready responsiveness to ideals of law and order was attributed by the teachers who were questioned to his influence and that of the heads of departments; but of course it could not have been secured unless the teachers themselves had also shared the same influence in cooperation with their official superiors.

In spite of its present smooth operation there are defects in the organization which must be remedied in order that the present grade of efficiency be maintained and that further progress in efficiency may be achieved. We recommend that the acting principal be at once relieved of all teaching excepting one senior division in American history, which it would be desirable for him to retain in order to keep in intimate touch with teaching problems and with the senior class. He should be free to give more time to administration, supervision, and constructive planning for the future.

We recommend that a man and a woman from among the heads of departments be appointed as acting assistant principals, and that their teaching schedules be reduced to three sections per day.

We recommend that the stenographer-clerk or another person equally competent for that work be designated for full-time duty in the office.



We recommend that the library be at once stocked with a careful selection of reference books and general literature, and that a trained librarian who is also a successful teacher be placed in charge. The library room is nicely and completely furnished, but there is not a book in it. Furthermore, it is far too small for a school of such large size. It should be supplemented by a stock of reference books in the study halls and department classrooms, and these should be furnished with reading tables and suitable bookshelves.

No large school can have its pupils carrying on really successful and efficient library study if it must depend entirely on a public library, unless that library is contiguous to the school grounds, and unless the librarian is a person with teaching experience and thoroughly intelligent and sympathetic with regard to school needs. The school must have its own library, which need not be relatively large, but should be especially well selected, and should be efficiently managed by an expert high-school librarian. It is not a disadvantage but a real advantage to have it partially departmentalized and to combine the reading-room features with the study hall. The librarian should be under the immediate authority and direction of the principal and coordinate with the heads of departments.

It is a pleasure to testify to the efficiency of the office secretary and to the competent manner in which the office records are kept.

We recommend that at the earliest possible occasion the present custom of assigning pupils to classrooms for study while recitations are being carried on be discontinued, and that the school be organized on the study-hall plan. We do not recommend large study halls. A hall containing more than from 80 to 100 pupils is too large to be efficiently managed. There should be several study rooms, and they should be distributed on the different floors. The adoption of the work-study-play plan of organization would solve this difficulty adequately.

A combination of the study-hall plan for the juniors and seniors, with the directed study plan for the ninth and tenth grades, is regarded as the best arrangement. This plan has been successfully carried on in the Township High School at Joliet, Ill., and elsewhere, and is strongly recommended by excellent school men; but directed or so-called "supervised" study has proved to be unsuccessful with many teachers who either are not in sympathy with the plan or do not thoroughly understand its purposes, its advantages, and the technic of handling it.<sup>9</sup> If it is introduced, its workings should be carefully watched and directed by the supervisors or the teachers, and teachers who can not learn to conduct it successfully should not be assigned to such duty. It would be best to have the

<sup>9</sup> See *Memphis Rep.*, pt. 2, loc. cit., p. 184.

teachers unite in a careful study and discussion of the plan before adopting it. We suggest that such study be made during the coming semester, with a view to its introduction next fall, at least by those teachers who are especially desirous of trying it out. There is no doubt but that the plan is theoretically right but difficult of administration in a large school.

We recommend that in organizing sections for the next semester careful study be made in order to devise means of avoiding under-sized and oversized sections so far as this is feasible in view of the suggestions heretofore made.

We recommend that teachers of English and science be relieved of seat-room and study-hall duty in order that the former may have more time for theme examination and conference criticism and the latter more time for preparing demonstration and laboratory experiments and for the care of apparatus. This need not apply to those science teachers who unfortunately at present have no laboratories and little or no apparatus to care for. The athletic coach should be assigned competent paid assistance, as he is loaded beyond all reason and fairness to him and his pupils. We recommend that such additional teaching force be provided as may be necessary to carry out these recommendations.

The entire administrative work of the Howard High School is carried on by the principal, who is a new man in the school. He has the school well in hand. He has secured the loyal and enthusiastic support of the teachers and the good will of the pupils. His knowledge of secondary education and of the needs and capacities of the colored children inspire confidence. At present, due to the small enrollment of the school, he can get on well without clerical assistance; but when the school goes to a new building, which it soon must do, it will surely grow, and he will need a stenographer-clerk.

This school has no library. It should be supplied with two or three hundred much-needed reference volumes, which might be placed in the assembly room along with a reading table and a supply of well-chosen periodicals. If this is done, the library should be placed under the charge of the principal emeritus, assisted by voluntary pupil librarians.

#### IS THE SUPERVISION EFFECTIVE?

From the teachers' questionnaire we learn that supervisory visits by principal and heads of departments have been frequent in most of the classrooms of the Wilmington High Schools, and that they have been helpful in many ways. Six teachers mention helpful co-operation, suggestions, and criticisms; four mention help and encouragement in dealing with pupils; three, personal encouragement

and stimulus to greater endeavor. Five think that the presence of the supervisors reinforces teaching, and influences pupils to co-operate better. One mentions help in the solution of difficult situations; one, help in understanding records and clerical work. One mentions discussions of classroom methods in the school in connection with department meetings as being especially helpful. One says that the pupils comprehend that the office is on the alert. Six teachers either received no supervisory visits that they can recall or can think of no particular benefits derived from them. It is quite clear from the answers that with few exceptions the teachers feel that the supervision has been satisfactory and helpful.

According to the testimony of the teachers, departmental and general teachers' meetings have been frequent, but are not regarded as burdensome. The testimony as to the direct helpfulness of these meetings is not so strong and positive as that regarding the class visitation.

In the Howard High School visits from both principal and principal emeritus are reported by some teachers, and some emphatically state that they have received benefit and encouragement from such visits. Nearly all the teachers suggest that supervision from experts in their special subjects would be helpful to them. They report that their relations with the administration of the schools are personally satisfactory. They all report that their greatest difficulties arise from the lack of a suitable building and adequate equipment. There can be no doubt whatever that they are right about this.

From the answers given by the teachers and from our own studies of the situation we conclude that the supervision in the high school in both quality and quantity is considerably above the average of that found in schools of their class. It appears that the supervisors are especially successful in establishing a satisfactory working relation between themselves and the teachers whom they supervise.

As we have already indicated elsewhere, our opinion is that it is possible for the supervisors to extend and greatly improve the supervisory work they are now doing. However, this can not be expected of them unless their teaching and executive burdens, which are now very heavy, be reduced sufficiently in order that they may have more free time both to supervise more and to make more careful and intensive preparation for supervision. Thorough and intensive supervision requires analysis and scientific study of teaching problems. If carried on in a thoroughly modern way, it includes giving standard tests and making educational measurements involving statistical analysis. Such work consumes time and strength, but is productive of much good, for it locates difficulties and prescribes spe-

cific remedies. But no person can do much of it if he is already burdened as heavily as the principals and heads of departments are now burdened. It is therefore pertinent here to emphasize the recommendation that the recitation schedule of each department head in the Wilmington High School be reduced to three sections per day, and that supervising halls and study rooms be delegated to others of whom planning and intensive study of supervisory problems are not required. With this and the other administrative changes that we have recommended above, the administrative and supervisory organization of the high schools might be placed on an unusually satisfactory basis at the beginning of the second half of the present school year.

Looking toward the future, however, the commission desires to make a recommendation which, if followed, would benefit all the schools as well as the high schools. This is that a man be engaged as an assistant superintendent of schools, whose duties shall consist in supervising the high schools primarily and acting as head of a department of educational research and efficiency for the entire system. The position would require the services of a high-grade man with special knowledge of the administrative and teaching problems of senior and junior high schools, and with expert knowledge of educational measurements, intelligence tests, and statistical methods as applied to school administration. The salary, rank, and authority of such an officer should be next below those of the superintendent, in order to attract to the position a man of the requisite attainments and ability. With such a person as the chief supervisor of the high-school teaching, not so much work and intensive study of supervising problems and not so much responsibility need be incumbent on the heads of departments in the high schools, and they might therefore continue to teach as many pupils as they are now teaching.

#### THE JUNIOR HIGH-SCHOOL TYPE OF ORGANIZATION.

The commission recommends that the beginnings which have been made in Wilmington looking toward a shift to the junior high-school form of organization be extended and that ultimately adequate provision be made for such schools suitably placed in respect to school population.

Congregating the seventh, eighth, and ninth grades in Wilmington, and placing them in buildings suitably placed and equipped, would go far toward relieving the present congestion and at the same time provide educational advantages the value of which it is impossible to estimate.

## ADVANTAGES OF THE JUNIOR HIGH-SCHOOL ORGANIZATION.

By bringing the seventh, eighth, and ninth grades together at a central point it will be possible for the school department to offer to the pupils in such grades a choice in the subjects of study. In the usual ward school it would obviously be impossible to offer any option, for as one proceeds upward in the grades of the system the attendance falls off rapidly. The seventh grade, therefore, is always very much smaller than preceding grades, and in many schools it is barely large enough to maintain two classes. From the standpoint of expense alone, therefore, it would not be practicable to offer to the seventh grade, scattered as it is among a number of schools, a variety of choice in subjects to be studied. Such opportunity can be provided only where a sufficient number of pupils are grouped together to make each class large enough to justify the assignment of a teacher. There can be little question that by the time young people have reached the upper grades of the grammar schools their tastes, aptitudes, and abilities are sufficiently developed to warrant giving them an opportunity for the exercise of some preference in the selection of subjects to be studied. An organization of the school system whereby such grades are brought together in numbers is the only arrangement, within reasonable limits of expense, through which this variety can be secured.

By bringing together in this way a number of pupils of the ages and attainments of those of the seventh and eighth grades the principal and his faculty have an opportunity of initiating a splendid work through the student-body organization that can thereby be formed. Such an arrangement provides the opportunity for developing the social consciousness of the individual and through it teaching him how to conduct himself among his fellows, and at an age when the instinct for establishing social relationships runs high. Perhaps no lesson is of greater practical value to the individual than that of learning how to get on with his fellows without compromising his principles and standards. The activities coming naturally through participation in a live student-body organization provide unusual opportunities for teaching such lessons concretely, naturally, and therefore effectively. Furthermore, by means of a student-body organization high standards of conduct and character can be secured and a general school morale developed as in no other way. It has been found, too, that a measure of student government can be introduced in conjunction with such a plan with advantage to those who participate in the work and with beneficial reaction upon the tone of the school. It has been observed that students in the junior high school who by means of such activities develop confidence in them-

selves very quickly make their influence felt in the student body of the senior high school when that school is reached. Thus with such an internal organization of the students as this plan provides a hitherto unsuspected and undeveloped field exists wherein can be secured highly significant results of a very practical character.

#### MEN TEACHERS NEEDED IN THE SCHOOLS.

Again, a segmentation of the divisions of the public-school system, in accordance with such a plan, fully justifies the paying of high-school salaries to all teachers in the junior school group who have certificates of high-school grade. Where this is done, it becomes possible to command the services of young men who are college graduates and who are willing to enter these grades as teachers and to remain therein for a time. The customary arrangement, wherein the seventh or the seventh and eighth grades are grouped with the elementary division, and wherein the elementary school schedule only applies, offers no inducement to such men. In consequence, in most communities throughout the United States the sorry fact is that generations of boys and girls are passing through the entire elementary period of school life without at any time ever having come under the influence of a male teacher. It frequently happens, therefore, that a child is never under the instruction of a man until he reaches the high school, and as nearly three-fourths of the school population of the land never enter the high school, it is clear that the criticism that our school system is tending toward a feminization of the children is a just one.

#### THE SENIOR HIGH SCHOOL.

Then, through such a grouping as this plan proposes, it would seem that the work of the senior high school could be made more intensive than it usually is, with higher standards of scholarship and more rigid requirements than universally obtain, and this without working a hardship upon the young people who enter the school; for it would seem that if the work in the junior high school be carefully and efficiently done, the incoming students will develop a much more serious attitude toward their work, and will have oriented themselves better and more quickly in their subjects.

Moreover, the pupils entering the senior high school will have developed in the junior high school a greater cohesion than obtains under the old form of organization. Under the customary plan, pupils dribble into the high school in small numbers and from many schools. They are lacking in anything approaching community feeling or a feeling of group responsibility. They have had no experience in organized action and are not conscious of their in-

dividual responsibility in personally contributing to the establishment of a student-body sentiment that shall be high and lofty in its purpose and influence.

In consequence, it is difficult for the student body of the school to assimilate such pupils properly and completely, and if the existing school morale be low, these incomers are in no way fitted to lift it. With two or three years of community life at the junior high-school center wherein the administrative methods are shaped to develop this responsibility, the pupils would necessarily enter the senior high school at a much higher level with respect to school standards than obtains under the present procedure.

## 5. BUILDINGS AND EQUIPMENT.

### WHAT SHOULD BE DONE WITH THE HOWARD HIGH SCHOOL?

As to the Howard High School only one statement need be made. The building is utterly unfit for occupation for school purposes, and the equipment is entirely inadequate. This school should have immediately a new, safe, and thoroughly modern building large enough to allow for a large increase in enrollment and so designed that it can be added to when still more space is needed. Nothing else should satisfy the people of Wilmington, both white and colored, and both should be equally proud of it when it has been provided. In such a building adequate facilities and apparatus should be provided for both prevocational and vocational instruction in manual and household arts, for biological, physical, chemical, and geographical laboratories, for a combined library and study hall, for a gymnasium and auditorium, either combined or separate, for a commodious office and rest rooms, for art and mechanical drawing rooms, and for a completely equipped cafeteria. The building should be placed in a favorable locality on a lot of sufficient size to give adequate space for organized games and free play. Space for instruction in gardening is also highly important; space for the gradual development of such short, intensive trade courses as we have recommended should be provided. In designing such a building particular attention should be paid to proper lighting, heating, and ventilation of the rooms; and the rooms should be specially designed for the purposes for which they are to be used.

### IS THE WILMINGTON HIGH-SCHOOL PLANT SATISFACTORY?

The buildings of the Wilmington High School fall far short of being well adapted to the purposes for which they are intended. A colossal mistake was made in placing the new building alongside the older one. By this mistake, not only was the only available

playground space eliminated, but still worse, nearly all of the classrooms of both buildings that face the narrow court between them were at once rendered useless for school purposes, because each building shuts off the sky light from the other. It is a well-recognized law of school architecture that no school building should be placed nearer to any obstruction than twice the height of the obstruction. This would require approximately a distance of 150 feet between the two buildings. The actual distance is less than 20 feet. At least eight rooms in the older building and a corresponding number in the new building were found to be useless or seriously defective with regard to adequate access of daylight. They are good only for storage space, for rest or committee rooms, for night-school work, or for other such purposes where little light is needed or where artificial light may habitually be used. There is no remedy for this loss. Most of these rooms are now in use as classrooms, and even the artificial light is inadequate. A proper State building code, properly enforced, would prohibit their use as schoolrooms. Neither is there any remedy for the loss of space due to poor designing of the hall, cloakroom, and pipe-shaft space, and to the too great width of the classrooms in the new building.

In the future school-building enterprises of Wilmington the board should see to it that the advice of competent persons, familiar with school needs, is obtained and used by the architects employed to design buildings, unless the architects employed are themselves recognized specialists in school architecture. As a matter of fact, only the latter kind of architects should be employed. Even an expert school architect should be required to listen to the suggestions of the heads of departments and special teachers with reference to the arrangements and details of laboratories, shops, and special rooms. From the carefully guarded answers to our questions we are led to infer that neither the principal nor any science teacher was consulted or allowed to make any suggestion when the high-school annex was designed. There should be no repetition of such folly. If the local school men are not thought competent to give advice of value with reference to a projected new building such advice should be sought outside, and it should be the best obtainable.

Numerous bad defects about the building were noted. For example, the girls' gymnasium has no showers, a fact which cuts down the usefulness of the girls' physical training work 50 or 75 per cent. All of the laboratory rooms are too small for the number of pupils they are designed to accommodate, excepting the domestic-science kitchens and the sewing laboratory, which is too large. Physiology and geography are wholly without laboratory facilities; and the rooms in which they are taught are too small even for suitability as classrooms for those subjects. The lobby space and stairways to the



cafeteria, which itself is otherwise commodious and excellent both as to appointments and management, are inadequate to provide proper access and waiting space, a condition which results in congestion and consequent difficulties and wasted time in comfortably managing the pupils at the lunch periods.

There is only one covered passageway between the two buildings, that on the second floor. Further relief can and ought to be provided by building a second bridge above the first; but two double passages or one twice as wide should have been provided. As it is, many pupils may have to pass from the upper floor of one building to the upper floor of the other, and descend to the level of the bridge and back again in order to do so.

It is well known that much stair climbing is bad for many adolescent girls; and in addition to that there is much waste of time.

If the recommendation of the commission relative to the establishment of two junior high schools be adopted, the enrollment of the Wilmington High School will be materially reduced. When this is done it may be possible to make some changes in the building that will provide for supplying the deficiencies that we have noted. Certainly additional laboratory space should be provided, so that physiology and geography may be taught by laboratory methods and so that the overcrowding at least in the biological and general science laboratories may be remedied, and so that these laboratories may be equipped and operated efficiently.

#### IS THE EQUIPMENT ADEQUATE?

In no department did we find the equipment of the Wilmington High School fully adequate. There is a limited supply of good maps for geography, history, English, and foreign languages and literature, but in no case could either the number or variety be regarded as sufficient for a school of 1,300 pupils. Every teacher of these subjects should have wall maps at hand for instant use covering all the important localities and geographical features related to the subject matter of these studies. The same maps may be used by different teachers if their rooms are close together; but experience shows that if a teacher has to send to a distant part of a building for a map, she simply will not use it. It is hard enough to get most teachers to use maps anyhow; and for the sake of the pupils no obstacles should be thrown in the teachers' way.

There should also be a good number and variety of blackboard outline maps on which geographical relations can be shown with colored crayons. The observer was not able to find any of these in the school: and many of the teachers were not even cognizant of their great utility.

The equipment for chemistry is fairly complete; but that for physics is far below what it should be in quantity and variety, and there is not nearly enough cabinet space in which properly to house it.

The biology laboratory and the general science laboratory have tables crowded into them so thickly that it is almost impossible to get about in them. It is practically impossible for a pupil in the biology class to get to the blackboard if he happens not to be seated next to it. In neither of these laboratories is there a sufficient amount of apparatus and supplies to make efficient laboratory instruction possible, and in neither of them is there sufficient elbow room for the pupils to work effectively with it if they had it. Furthermore, there is not adequate cabinet space in which to store apparatus and materials; and if cabinets were provided there is no available space in which these might be placed.

In the rooms where physiology and geography are taught there are limited amounts of illustrative material, but not enough cabinet space in which to keep them, and no space in which to install such cabinets. Neither room has a demonstration table, so that experiments and demonstrations can not be made without the greatest of difficulty, and then not so that all pupils can see them. There is, of course, no possibility of individual laboratory work in these subjects under such conditions, although it is as necessary in these sciences as in any other.

The art room has no water supply, a condition which is obviously absurd; and there is almost nothing in it in the way of modern equipment for teaching the various phases of pure and applied art and art appreciation that are emphasized in our best modern high schools and technical schools. The room is also crowded with too many desks, and lacks cabinets for the preservation of the necessary supplies and for the pupils' work and tools.

The equipments and conduct of the departments of household and manual arts are discussed at length in the special parts of this report that are devoted to those subjects.

In the various rooms and the halls of both schools we were glad to observe an unusually generous and well-selected assortment of good pictures and casts. This feature is very creditable to the community.

We found on questioning the teachers of science that it has been very difficult for them to get equipment. They make requests for needed materials year after year without getting them. One teacher ordered a certain kind of equipment for five years in succession before she got it, and has been asking for two years for another kind of necessary equipment and has not yet secured it. One teacher sent

in a request for a case in which to keep specimens, and another teacher who did not order such a case got one and kept it. The first of the two teachers could not get another. In 1917 a requisition was sent through for 12 microscopes, a very modest request considering the school had none. Through some negligence or delay or haggling over prices the time went by when the microscopes could be obtained at any price. They were finally purchased and installed in 1920, but there were only 6 instead of the 12 asked for, and the 6 then cost more than the 12 would have cost if they had been promptly purchased when asked for.

These details are sufficient to show that there is something woefully deficient in the equipment of the high schools of Wilmington and also something radically wrong in the manner in which requisitions are handled and supplies purchased. The only hope for better things must lie in the possibility that the organization of the board of education and its methods of transacting business may be changed fundamentally and placed on a business basis. Supplies for schools should be ordered and purchased according to business principles. With the present method of filling requisitions, no board members, even with the best intentions, can bring about the proper equipment of the schools.

Equipment should be budgeted and apportioned yearly. Deficiencies should be made up. Worn-out and used-up equipment should be replaced annually. Department heads should prepare their requests for the annual budget, and these should be reviewed and adjusted by the principal. Specifications should be so made that the teachers will get in each case exactly the articles that they want and not some cheap substitute. Purchases should not be made by members of the school board acting as committeemen, but by a regularly constituted purchasing agent. The man appointed to such a position should be sufficiently intelligent and sufficiently sympathetic toward school needs so that he will act toward the school men as an agent and helper and not as a dictator, as business agents of school boards are too often wont to do.

Yet, whatever may be the character of the school-board organization, the board and the citizens of Wilmington can not hope to have their schools rank with the best institutions of their class unless they take measures to have them properly housed and equipped.

## 6. SUMMARY OF FINDINGS AND RECOMMENDATIONS.

1. The high-school enrollments are small relative to those of other communities where educational sentiment is at its best. Measures should be taken to create a better and more united sentiment in the community for the support of the public high schools.

2. There is a large amount of retardation and elimination affecting high-school pupils. Measures should be taken to better the schools with respect to both these conditions.

3. There are far too many failures among the high-school pupils. Remedies for this condition should be sought and applied.

4. Too many pupils who have not the mental stamina and ambition to go through a college course are entering the college preparatory curriculums and making a failure of it. The school should set up and maintain a system of educational and vocational guidance which should study the pupils and direct their efforts into the channels where success is most probable. The pupils do not exercise enough care and intelligence in choosing their curriculums.

5. The curriculums should be overhauled and reconstructed so as better to meet the needs of the various groups of pupils.

6. The high schools do not make a good showing on the educational qualifications of half their teachers; and in general the least effective teaching is most common in those departments where the average training of the teachers is lowest. Many of the teachers who are noncollege graduates have made commendable efforts to improve themselves, but usually by rather superficial methods. Evidently the scholastic requirements have been too easy in the past. More recent appointments show a tendency to stiffen the requirements. This policy should be continued with respect to all new appointments; and every teacher should be required to keep up with the times by a certain minimum of methodical study. Those not willing to carry on each year some definite study that is acceptable for college credit, either graduate or undergraduate, unless deterred by ill health, should be dismissed or retired on pension, as the circumstances and merits of the case indicate.

7. The majority of the high-school teachers are scheduled for too many or too large classes, or both, and are required to superintend study sections while teaching. Immediate steps should be taken to remedy these conditions.

8. Although the condition is not so bad as in some schools, there are in the Wilmington High School too many undersized and oversized classes. All the latter and as many as feasible of the former should be eliminated.

9. The administration of the high schools is very good, but the administrative and supervisory officers of the Wilmington High School should be relieved of some of their teaching duties in order to increase their efficiency.

10. The supervision is very good, but ways and means for further improving it are pointed out in the report.

11. The appointment of an assistant superintendent who shall be supervisor of high schools and educational efficiency expert for all the schools is recommended.

12. A special study of the art work is recommended in order that it may be determined how this department may be made more educative, more practical, more effective, and how it may be made attractive to more of the pupils.

13. The Howard High School should be housed in a new and modern building and provided with vocational as well as college preparatory courses.

14. The buildings of the Wilmington High School are in general not well adapted to their purpose. We recommend careful consideration of the facts and suggestions made in the report looking toward possible remedies for some of the defects of design.

15. The Howard High School has almost no equipment, and the equipment of the Wilmington High School is sadly deficient in nearly every department. We recommend that immediate steps be taken to supply these deficiencies.

## Chapter III.

### SPECIAL DEPARTMENTS AND SUBJECTS.

#### 1. THE KINDERGARTEN.

In the fact that it has practically no kindergartens, Wilmington is an exception among the cities of the Eastern States. Of these, Philadelphia, Boston, and Hartford adopted kindergartens over 30 years ago; New York, nearly 30; Washington and Newark, over 20; and Baltimore, nearly 15. The State of Delaware makes an equally poor showing in this respect in comparison with its neighbors. Until recently New York held first rank and New Jersey second among the States in proportion of children of kindergarten age enrolled in kindergartens. Within the past three years California has risen to the first rank, with 32 per cent of the children of kindergarten age in kindergartens; New York second with 30; and New Jersey third with 29. Pennsylvania has kindergartens in all its large cities. In comparison with these, Delaware's 3 per cent makes but a poor showing, and even this is attributable not to public but to private kindergartens.

The city of Wilmington is not unfamiliar with the kindergarten and its value. It has had several good private kindergartens for years. The Tower Hill School, a new high-grade private school, has an admirably equipped kindergarten, because those who organized it believe a school to be incomplete without one. The three social centers in Wilmington each have a kindergarten, and each considers it invaluable for the carrying out of its program of social service. Because some of the public-spirited citizens believe that the schools should render a like service, they have taken a step toward the establishment of public kindergartens by paying the salaries of two kindergartners, for whom the school authorities furnished the rooms. One of these has been placed upon the public-school pay roll the current year. One other public kindergarten has been opened, designated as a "Primary Circle." A beginning has been made, but a beginning only. In fairness to the other children of the city, the privilege now enjoyed by a few should be extended to all.

#### KINDERGARTEN INFLUENCE NEEDED IN PRIMARY GRADES.

To bring the Wilmington schools up to the level of the best schools of the country the authorities will need to take the kindergarten into far greater account than they have thus far done. One of the weak

spots in the work of the elementary school at the present time is the beginning work. Statistics show that 25 per cent of the children in the first grade throughout the country fail to pass on to the second grade at the end of the first year, the test being their ability to read according to the standards set. This indicates that the beginning work is not yet organized upon the right basis, and that the children are thrust into the work of the three R's too soon. To carry the work in these successfully they need such a foundation as the kindergarten gives. Children from 4 to 8 years of age are in a period of their development wherein they need much physical activity in the form of directed play and much opportunity to gain first-hand knowledge through investigation and experimentation and expression with materials of different kinds. To deprive them of this is to hinder their best development. The kindergarten meets the needs of this period, and it is not until these needs have been satisfied that children see any meaning or feel any real interest in learning the three R's.

Children who enter kindergarten at 5 not only run less risk of failing in the customary work of the first grade, but are capable of doing work of a much better quality. That the kindergarten prevents retardation has been proved repeatedly. No study has yet been made of the cost of the first-year repeaters as compared with the cost of kindergartens as a prevention of repeaters, but in view of the many problems to which a large percentage of repeaters give rise, there can be little question that the preventive measure would eventually prove to be the economical one. But whatever their cost, Wilmington can ill afford not to provide kindergartens. Its children need them that they may gain knowledge at first hand, and that they may have an opportunity to use eyes and hands in purposeful joy-giving activity. It needs them so that they may learn to play—to play cooperatively as a basis for true American citizenship later on.

The value of the kindergarten in a school system is by no means confined to the work done in the kindergarten itself, however, even as a prevention of failures later on. One of its greatest values lies in its suggestion for right methods in the grades to follow. Its methods are right because they are based upon the conception that education is something more than a mechanical system of training, that it is instead a process of development. Those who accept this view hold that the facts of children's development at a given period must determine the subject matter and method of education at that period. It is the acceptance of this principle that is revolutionizing the organization and methods of school work everywhere, particularly in the primary grades. The kindergarten has illustrated the new ideals and methods, but there are hundreds of primary schools throughout the country that have reorganized the customary work

in these grades in accordance with the principles implied in the conception.

If these principles were applied in the Wilmington schools to-day, they would occasion many changes. Placing less emphasis upon the mastery of the three R's at the beginning would be one of the most important of these. The advocates of the new education believe that children just entering school have more important needs than these, even though they enter at the age of 6. The three R's are important means to an important end, but children do not sense their value at the beginning. A second change would be the devoting of a greater amount of time to physical education in the form of play instead of formal gymnastic exercises, and the organizing of the daily schedule so as to require more active work and fewer periods of sitting. A third would be an increased emphasis upon the facts that have interest and value for little children—the planting, growth, and harvesting of vegetables, flowers, and fruit. Such observation is necessary to intelligent work in the customary school subjects. A fourth would be the devoting of additional time to the manual arts, and making the work in modeling, drawing, and constructing a real expression of the children's own knowledge. It is by working out such projects as the rooms in a house, the grocery store with its fruits and vegetables or the garden or farm, that children find real motives for art expression or for learning to read and write. Such projects afford opportunity for children to exercise their own initiative and therefore to do real thinking. The adoption of this method would therefore constitute still another change, one of great importance.

The points in which the principles of the kindergarten would improve the work of the primary grades in Wilmington are those in which the work at present has been rated weak. As at present organized the work that best meets the needs of beginners—physical exercises, nature observation, and art—receives but scant attention; and that least adapted to their needs, that of the three R's, is the work most stressed. Wilmington has therefore a double need for kindergartens. There are still some States where no legal provision has been made for the support of kindergartens by public funds, but this is not the case in Delaware. Any program for the improvement of the schools in Delaware's largest city should plan for the adoption of kindergartens, in order that the foundations of the school work may be strengthened. For a discussion of other aspects of kindergarten practice see Bureau of Education surveys of Memphis, Hawaii, and Winchester, Mass.

## 2. HOME ECONOMICS INSTRUCTION.

Home economics instruction is now accepted as an essential part of all public-school courses for girls. At present two-thirds of all



of the larger school systems require courses in this subject for girls in the upper grades of the elementary schools, and 8,000 high schools maintain departments of home economics.

Progress in the methods of teaching and choice of subject matter in home economics has been rapid. Experiences during the war period exhibited both the strength and the weaknesses of home economics instruction as previously given and resulted in many radical changes being made in home economics in the more progressive schools. Among the most marked modifications was a complete reorganization of all so-called sewing courses, and abandonment of the formal method of teaching by "models" and an adaptation of all projects to the actual home conditions of the pupils. In like manner food courses were changed and emphasis placed upon health and thrift. New stress was placed upon sanitation, home care of the sick, and household management. Hence home economics is now interpreted to include such instruction as develops a degree of skillfulness in fundamental household activities, aids in the formation of right health habits, promotes home helpfulness, and contributes to the establishment of acceptable standards of American home life.

Efficient home economics instruction also encourages a wise use of material, time, and money in securing physical comforts for the home, it stimulates an interest in all civic affairs that directly or indirectly affect the welfare of the home and its inmates, and it assists in creating among the students a social consciousness.

Broadly conceived and carefully planned courses of study, capable and well-trained teachers, competent supervisors, proper scheduling, and adequate and suitable rooms are all essential to successful home economics instruction.

#### EXISTING CONDITIONS IN WILMINGTON SCHOOLS.

Wilmington's progress in home economics education has not kept pace with that of cities of comparable wealth and population.

Sewing, which is taught in the white school from grades 4 to 8 and is elective in the high school, follows the old formal type of instruction. Children with holes in their stockings still darn holes cut in red flannel, and children without buttons on the backs of their dresses laboriously sew on a wash cloth which when completed will have taken an entire half year.

In the choice of projects no consideration is given to the social or economic status of the child or to her interests or needs. Every child in any certain grade does exactly the same task at a given time in that grade. Such exactions may entail hardships upon the home, obligate the parents to supply material for garments neither suitable

nor desired, and completely fail to establish an interest in and appreciation for the general subject of home economics. This kind of instruction is more easily given and more readily organized and supervised than the type which adjusts the project to the needs and interest of the student. A different and improved course would necessitate a trained staff of teachers, more time for supervision, adequate rooms, and modern equipment. This latter means that, together with other necessary articles, there would be one sewing machine for every four girls in the sixth grade and in classes above the sixth.

Food instruction in white schools is limited to the girls of the 8A grade and the ninth and tenth years, except that some 29 girls of the high school have elected the four-year home economics course.

Because but one double period per week is allowed for teaching foods, only actual cooking technique is taught, and no time is given to the discussion of the relation of food to health, or to the consideration of the economics of food preparation or service. Though the majority of the Wilmington schoolgirls do not reach the 8A grade, and though many come from homes where ignorance of the fundamental laws of personal hygiene, sanitation, and healthful food preparation prevails, yet the instruction in foods is limited to girls in the eighth grade and above.

To limit the instruction in foods to 8A and high-school girls, to reduce it to one lesson per week, to preclude the possibility of teaching the subject in its broader aspects places Wilmington schools in a class by themselves. All school health surveys prove that sickness among children could, to a great extent, be prevented if there were more general knowledge concerning foods and food preparation.

The special four-year high-school course in home economics compares favorably with similar courses in other cities, though it may well be doubted if the school authorities are justified in continuing to maintain this separate home economics course when so few students enroll in it and when its maintenance necessitates limiting food laboratory use for all other girls.

The night-school courses for white girls and women need not be discussed as to present conditions. They were at the time of the survey "feeling their way," and feeling it under rather difficult conditions so far as rooms, equipment, and teaching force are concerned. No night-school work had been arranged for colored women, though plans for this were being formulated when the survey was made.

In the colored schools sewing begins in the third grade, food work in the 7B, and both extend through the high school. Efforts have

been made to adjust this work to the needs of the children, but the equipment is so poor and the time allowance so small that the instruction is not what it should be.

#### TEACHERS AND SUPERVISORS.

In general, all sewing in the elementary schools is taught by teachers regularly employed as room teachers. These women, because without specific training in home economics, must of necessity teach exactly the course outlined by the supervisor of sewing and must for the same reason follow the methods in which they have been coached. As a result of the scantily trained teaching corps in the sewing of the lower grades, no possibility of the adjustment of the project to the pupils' needs can be made. When to this lack of special training the teacher is further handicapped by overcrowding, inadequate lighting, poor seating arrangements, and insufficient equipment, it is not strange that sewing instruction fails to function in the home life of the child.

In the grammar school sewing is taught by special teachers, but not by specially trained home economics women. Because of special aptitude and interest, certain grade teachers have undertaken this special work. They are limited in their opportunity to develop the subject because of the rigid course supplied to them, because of excessively large classes, because of the long interval between lessons, and because of the hopelessly inadequate rooms and equipment. There is one exception to this last statement as to rooms, and that is that in building No. 24 the sewing room is fairly good.

Food work is taught by trained women, and a vigorous effort is made to adjust the instruction to the needs of the pupils.

One woman trained in home economics has charge of the food work and one of the clothing work in the building housing the colored high school. All teaching of sewing given in the other colored elementary schools is in charge of the regular teachers. The condition is not so regrettable as in the white schools, since all of the colored teachers have had some home economics training in their normal-school courses.

The clothing teacher in the colored high school is overburdened with responsibilities, as she not only carries a full teaching load but also supervises all other sewing work. The teacher of food teaches all classes in this subject for all colored pupils and also oversees the preparation and service of lunches to 200 children daily.

In the white schools the supervisors of both sewing and cooking teach as well as supervise. The head of the food work carries a full teaching load, supervises as much as possible, and also adjusts the relation of the laboratory supplies to the lunch-room conditions.

The natural and inevitable result is that the requisite amount of supervision is not given to this subject.

As in the white schools, so in the colored. The so-called supervisor is too busy with her own teaching to visit and render any considerable aid to the elementary sewing teachers.

#### ROOMS AND EQUIPMENT FOR TEACHING HOME ECONOMICS.

That Wilmington schools are not abreast of the most progressive systems in the place accorded home economics and that the type of work given is not that which is most approved can not be gainsaid, but much of the weakness of home economics instruction in the schools of the city is directly traceable to the extremely bad school buildings, which are so common a factor in the school situation. In building No. 24 the room used for sewing as now given is fairly satisfactory, but were the amount of time assigned to home economics that is considered desirable and the kinds of instruction supplied that are considered essential, this room would utterly fail to meet the needs of this building. In buildings No. 1 and No. 4 the rooms allotted for sewing instruction are wholly unsuitable. They are so small that it is impossible for the teacher to observe student work properly, the children are uncomfortable, and the lighting is bad. The children from the fourth grammar school report to the high school for this instruction and have good rooms and equipment.

All fourth and fifth grade sewing and the sixth-grade work given in elementary-school buildings having a sixth grade are taught in ordinary classrooms with practically no equipment.

There are excellent sewing rooms in the high-school building. The high school also contains two well-equipped food-preparation rooms. These rooms are well located on an upper floor, are light, well ventilated, and agreeable. A small dining room connects the two kitchens and is admirably suited for practice in meal service.

With the exception of the very excellent rooms in use in the high school, and the one fairly good room in building No. 24, there is no real provision for home economics in the white schools of Wilmington.

Poorly supplied as are the white schools, the colored schools are in much worse condition. One room in a poor basement is all the provision made for teaching cooking to all colored girls, and this room is also used at the same time for the preparation of lunch and the serving of it to 200 colored children. There is only one room in this building in which sewing is taught to grade, high-school, and normal-school pupils.

In neither white nor colored schools is there provision for teaching housewifery or household administration, the theoretical work

connected with food and clothing courses, or the care of the sick and household sanitation.

The very first essential to the improvement of home economics teaching in the Wilmington schools is the provision of adequate and satisfactory rooms and equipment. So great is the need for this instruction that Wilmington's effort for improvement should not wait upon an extensive building program. Portable buildings for these special subjects should be purchased and placed within easy walking distance of schools Nos. 1, 4, 24, 25, 26, and 30 for white children. These need not be placed upon present school lots. In each case there should be two portables, one for sewing and one for food preparation, both to be used for lessons in housewifery and, in certain neighborhoods, until better conditions can be provided, both may be used in the service of hot food to the children whose mothers work or who for other reasons are in need of added nourishment. Similar relief should be provided for the colored schools.

In these portable buildings may be held the afternoon or evening classes in home economics which are so essential in any serious effort to Americanize foreign women. In certain localities it may be deemed desirable to rent a small residence in place of purchasing portable buildings.

The equipment for home economics teaching does not need to be elaborate. It should be of a type as good as can be secured through reasonable efforts by the people from whose homes the children come. It should be practical. In rooms to be used for food preparation there should be some utensils of the size needed in an average home, as well as individual equipment of small size. There should be provision for a constant and abundant supply of hot water; there should be enough sinks, so that there will be neither crowding nor wasted time in securing water; there should be a range using the most commonly used type of fuel, as well as a supply of gas stoves. It is now considered desirable to have for every four girls a four-burner gas stove, with an oven instead of a gas plate at each student's place. The stove gives experience easily transferred to home conditions. There should be stationary tubs, with wooden covers, in each kitchen, and an ironing board and an electric iron in order that the principles of laundering may be taught.

When new buildings are erected there should be provided in each at least one room for food-preparation classes, one for clothing classes, one small dining room, and one room in which there is a bed. The teachers' rest room and lavatory may be made a part of the housekeeping practice rooms for home-economics classes. All equipment should be of a type that is sanitary and attractive and of the most modern labor-saving construction.

Ample provision should be made for securing personal cleanliness for home-economics students and all other children in the school. All new schools should provide lunch-room space. This should not be below the first floor and should be so located as to make easy the transfer of cooked food from the class kitchen to the lunch room and also to facilitate the oversight of the lunch room by the home-economics teacher.

#### REORGANIZATION OF HOME-ECONOMICS EDUCATION.

To bring home economics instruction in the Wilmington schools to a desirable standard numerous changes are necessary. First among these changes is a readjustment of all courses and an increase of time allotted to those which are retained or established. Not all of the changes hereinafter suggested can be made during the year of 1921, and hence a three-year plan is included in these recommendations. The final accomplishment to be desired follows:

1. Drop the sewing from the fourth grade in white schools and in its place provide a standard industrial-arts course that will include grades 1 to 4. In this course the children will gain a control of the coarser muscles and become familiar with certain kinds of tools and certain fundamental processes. It is suggested that, together with other problems, there be those involving knitting, crocheting, basketry, raffia weaving, rug weaving, and canvas work. Children of the fourth grade may sew rags for rugs, but under no circumstances should they be permitted to undertake problems requiring close or strained use of the eyes.

2. Introduce cooking and housewifery in the fifth grade, but delay sewing for another year, because the child at this age should not be required to do fine needlework. The cooking requires greater activity, and through it the child may be taught something of the relation of right food habits to health. The foods chosen for preparation should be of the simplest character, and only plain and good recipes should be used. Small quantities and small utensils are easiest for small hands. Orderliness, cleanliness, neatness, and exactness of methods of work are among the objectives of this teaching. The housewifery should consist of such instruction as a well-informed and skillful mother would teach her daughter. For instance, the making of her own bed, nice methods of dish washing, useful dusting of furniture, and neat and dexterous table setting are some of the objects to be included in the fifth-grade home economics. Not less than 120 minutes per week should be given this work.

3. The sixth-grade home economics for the average student who will probably continue through the following two grades should consist of progressive projects in food preparation, clothing, and

housewifery. The food lessons should be keyed around the query, What should a child of this age eat in order to be well and grow strong and what may she do at home to lighten her mother's tasks? Her lessons in clothing will involve the use of the sewing machine in making articles needed either by herself, some smaller brothers or sisters, or by some institution child. Mending lessons should be a regular part of the course. The repair work should be done on actual articles of wearing apparel that are in need of mending. Stockings to be mended should be brought from home; so also should gingham or other cotton garments in need of buttons or patching. Any alert teacher can secure a supply of garments to be mended by those who fail to bring work from home.

All projects should be adjusted to the home experiences and needs of the pupil. Home economics which does not function in the home life of the child is worthless. Not less than 180 minutes of school time should be given to home economics each week throughout the sixth grade.

4. The seventh, eighth, and ninth grade work should be organized into a junior high-school cycle. Not less than 225 minutes per week of school time and 90 minutes of home work should be assigned this subject in the first two of these years, and in the ninth year home economics may be a full credit subject with the time equivalent to five class periods per week scheduled for its teaching and for home practice. All food preparation in these three grades should be with quantities sufficient for an average-sized family and with time requirements comparable to home cooking conditions. Theory and practice should be kept to an even advancement. The meal sequence should be adopted, and meals should be frequently prepared and served approximately under home conditions. Where desirable these classes may, in part, prepare the food required for school lunches and by special nutrition classes, such as those for tubercular children. The pupils will be more interested and make better progress when such projects are arranged. It is often possible to secure materials from the homes and have the cooked product returned for family consumption.

It is recommended that the pupils' attention be centered upon food and its accompanying subjects for one short, definite period and upon clothing, art, and other subject matter relating to clothing for another period, rather than as is frequently the practice, the alternation of lessons in food and in clothing. Projects undertaken should be completed rapidly and without interruption. It is advised that nine weeks be given to one type of projects, then nine weeks to another. It is highly desirable that the teachers employed be interested in teaching all of home economics instead of one narrow line, and also be able to do it efficiently. Such teaching as is here suggested is more

difficult than when rigid courses are outlined with very small lessons and absolutely uniform pupil progress. Consequently more adequately trained teachers with smaller classes are essential to successful work. The work should not be alike in all parts of Wilmington. On the other hand, the course should be adjusted to the needs, social conditions, and racial or religious observances of the children from the various sections of the city.

5. The present four-year high-school course in home economics should either be dropped entirely or else beginning work should be offered each alternate year only until there is a demand sufficient to sustain full classes of 20 pupils. Wilmington can ill afford a teacher for classes of 5 or 6 students.

6. Special home-economics classes should be established for girls of 14 years of age and over who are in need of such instruction without regard to their academic standing. These courses should occupy one half of the pupils' school time, and the other half should be spent in opportunity rooms. The most devoted, resourceful, and thoroughly prepared teachers are needed for this type of work. No school instruction, if rightly given, will so affect the future welfare of the less fortunate homes of Wilmington, and none will tend to make better, more efficient, or more contented citizens. This type of intensive home-economics instruction is expensive, but it will well repay the city in the decrease of ill health resulting from badly kept homes, badly fed children, and uninterested and ill-trained young women, who because of lack of standards of wholesome home life become a menace to the moral life of the city.

7. What has been recommended for the white schools is also recommended for colored schools except that, because the colored girls so generally leave school while yet in the lower grades, home economics should begin as low as the third grade, and the time allotment should increase until the sixth-grade girl spends not less than 90 minutes per day in home economics. Opportunity rooms with intensive courses should be provided for the colored girls who are over age, and the instruction should be of a most practical nature, so that the girl finishing the work will be recognized as prepared for wage earning in housework, in child nursing, or in dressmaking.

So few wage-earning occupations are open to the colored girl that special training should be provided in the lines in which she may find remunerative employment. It is recommended that home economics be continued through high school and normal course for the colored girls, that every teacher may understand and sympathize with the efforts of the special home-economics teachers and that from among these pupils other special teachers be developed.

8. Intensive home-economics instruction is needed by many different classes of women. Home-management courses, courses in house-



hold and community sanitation, and courses in both the physical and mental care and development of children will appeal to intelligent home makers. Short unit courses in certain phases of household furnishing, household linens, and garment making will meet the need of those expecting marriage. Very practical and personal instruction offered in the afternoons in their own sections of the town will reach the foreign women who are struggling to meet American conditions of living while still clinging to the Old World traditions and customs. The work should be taken to these women and may well combine with the Americanization work now being done.

If every dollar of Federal money for home economics in Delaware were spent in Wilmington it would be well spent if it resulted in the Americanization of the many foreign homes of the city.

#### SPECIALLY TRAINED TEACHERS NEEDED.

To teach such courses as have been suggested women must be employed who are well trained in all phases of home economics. It is not usual for elementary-school teachers to be either interested or trained in special lines of education, nor is it ever desirable to require such instruction of them. Therefore it is recommended that all teaching of home economics subjects in the Wilmington schools be put in the charge of trained special teachers and that provision be made for adequate supervision.

Wilmington should have one supervisor of home economics for the direction of all instruction in home economics. She should have an office and clerical assistance that she may be freed from small office duties and be able to spend almost all of the time in actual supervision. Such a supervisor should not be responsible for any class work, but should be expected to do some substitute teaching for brief periods when emergencies arise. There should be an assistant supervisor for home economics for the colored schools also. She should not be expected to teach more than one-third of her time.

If intensive home economics night classes or day part-time classes in home economics multiply, it may be necessary to employ an assistant supervisor to assume the responsibility for the vocational work, but for the present, at least, the supervisor of home economics should supervise both regular and intensive home economics courses.

Rooms and equipment have been discussed elsewhere. Too much can not be said in regard to the present hopelessly bad schoolroom conditions, nor in reiteration of the statement that no considerable improvements can be hoped for without provision of better working conditions.

## RELATION OF HOME ECONOMICS TO SCHOOL LUNCH ROOMS.

The present relationship existing between the manager of the lunch room and the teacher in charge of food work is most excellent. This relationship is satisfactory because of the present personnel of the two departments and not because it is good per se. A change of personnel might completely wreck the present satisfactory working conditions. In general, all lunch rooms throughout the school system (and many lunch rooms are needed) should be under the direction of the home economics department. Such an arrangement has many advantages. It makes available expert advice as to healthful food and sanitary conditions and advantageous disposal of food-class products; it provides instruction in right food habits for all children; and it permits, to some degree, training in lunch-room management for vocational class students.

## RECOMMENDATIONS FOR THE SPRING AND FALL OF 1921.

1. Drop fourth and fifth grade sewing in white schools.
2. Introduce food and housekeeping in fifth grade.
3. Omit formation of new classes in the special four-year course in home economics, and regroup the present students so that not more than two sections be maintained.
4. Provide a survey course in home economics for all ninth-grade girls and require this of all girls in the white schools.
5. Add 8B food work in the spring of 1921 and in the 7A and 7B in the fall of 1921. Increase the time and divide the instruction as suggested in the previous pages of this report.
6. Provide lunches in the grade buildings and place the administration of these in the hands of the home economics supervisor.
7. Employ trained teachers for the fifth, seventh, eighth, and ninth grade food work and have all sewing taught by special teachers.
8. Erect portable buildings for home economics classes and remove the classes from all grade buildings except building No. 24.
9. Increase the amount of home economics given in the colored schools.
10. Remove the present food laboratory from the basement in the colored high school and place it in a portable or rented building until a new high-school building is provided.
11. Add a woman trained in foods and one in clothing to the colored teachers' staff, thus freeing the time of the present food teacher for oversight of the lunch room and of the new food classes and giving time for the clothing teacher to supervise the grade courses and to organize additional work.

## RECOMMENDATIONS FOR THE FALL OF 1922.

1. Reorganize sixth-grade courses in white schools and add instruction in foods.

2. Employ a full-time supervisor of home economics.

3. Increase the number of rooms and the equipment in the grade schools.

4. Establish intensive courses in home economics for girls over 14 years of age in sections now served by schools Nos. 10, 15, 3, and 4; in sections now served by Nos. 1, 6, 7, 8, 14, and 20; and in sections now served by Nos. 12, 17, 23, 24, 26, and 30. These courses are described elsewhere in this report.

5. Wherever possible, operate school lunch rooms in connection with these intensive home economics courses, that all cooking may be with larger quantities and that much practice may be offered.

6. Establish similar courses of intensive home economics work at at least one center conveniently located, that may be attended by colored girls.

7. Establish cooperation with homes of the better class so that colored girls may have experience in such homes.

8. Encourage and support courses for adult women and girls to be given at times and places convenient for them and under sanitary and agreeable conditions.

9. Abandon the present basement food laboratory and open new rooms on the upper floor of the present high school, where food work is now given. It would be well to devote an entire floor to this work and add to the present type of equipment by arranging one or more kitchens of home kitchen size and furnishings and a bedroom in which to practice housekeeping and care of the sick.

By the fall term of 1923 Wilmington should inaugurate all the changes recommended. Newly organized courses should be in operation, all home economics should be satisfactorily housed, trained teachers should be employed, adequate supervision should be supplied, intensive courses should be maintained for girls and women, and a four-year course may again be offered.

Home economics where rightly supported and taught becomes health education. When cooperation is fully established between home economics departments and those of physical education and biology, health education may be attained and health habits established.

### 3. VOCATIONAL EDUCATION.

During the months of November and December, 1915, and January, 1916, a careful study was made of educational and industrial conditions in Wilmington, under the direction of the Commissioner

of Education, by Fred C. Whitcomb, professor of industrial education, Miami University, Oxford, Ohio. A report of this study was published by the Bureau of Education,<sup>1</sup> and included an analysis of the conditions affecting the schooling of boys and girls of 12 or 13 years of age and upward, the occupations open to or actually engaged in by these young people, and a description of provisions made for instruction in manual training, home economics, and drawing, courses of study, and shop and laboratory equipment. A careful study was made of conditions in the industries of Wilmington, the educational needs of workers, and existing opportunities for appropriate training. On the basis of these studies, "suggestions for a program of industrial education" were formulated, including suggestions for foundation work in manual training and home economics.

Although conditions have changed materially during the intervening months, due to the fact that certain of the recommendations made have since been adopted and carried into effect, and portions of the plan then suggested would need to be modified correspondingly, nevertheless, much of the analytical and descriptive part of the earlier report is still applicable.

Among the recommendations already adopted the following are of the greatest significance: (1) Appointment of a director of vocational education well qualified by training and experience to deal with the problem of vocational education as presented in Wilmington; (2) the opening of evening vocational classes; (3) the organization of part-time day continuation classes; (4) the organization of half-time cooperative continuation classes.

These special classes appear to have been organized upon a sound and efficient basis, and for the most part have been placed in the hands of enthusiastic and earnest teachers. In some cases it has been necessary to employ teachers who have had no special preparation for the work of teaching, but plans already on foot looking toward helpful supervision will serve to improve the quality of the instruction where needed.

For administrative reasons the present study was limited to what might be done in 10 or 11 days, and was necessarily of a character different from that of the earlier study.

It was possible even in this brief time, however, to visit all the school shops, the evening school, all the special classes, to visit a considerable number of manufacturing plants and other places of employment, and to confer with employers, labor leaders, and others in position to assist in securing a fairly adequate understanding of conditions. The present report discusses certain general principles

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<sup>1</sup> Industrial Education in Wilmington, Del., Bul., 1918, No. 25, p. 102.

and policies rather than statistical studies and the details of equipment and courses of instruction.

#### SCHOOL ENROLLMENT AS AFFECTING THE PROBLEM OF VOCATIONAL EDUCATION.

The extent to which the schools retain the children, or fail to retain them, has a twofold bearing on a program for vocational education: (1) It indicates whether the schools as now conducted are fully meeting the educational needs of young people, and, if these needs are not being met, it suggests something of the magnitude of the problem; (2) it indicates the amount of the educational equipment which young persons have upon entering wage-earning employment.

In both respects the enrollment figures for the Wilmington public schools give evidence of a grave problem to be met, as the following table shows:

*Enrollment in public schools, by grades, 1919-20.*

Grades.	White.	Colored.	Grades.	White.	Colored.
Grade 1.....	1,635	294	Grade 7.....	1,127	103
2.....	1,353	254	8.....	907	52
3.....	1,367	223	9.....	513	25
4.....	1,339	167	10.....	338	19
5.....	1,385	170	11.....	150	21
6.....	1,290	130	12.....	119	14

These figures show that there is a rapid falling off in enrollment after the fifth grade, when children of normal advancement are 11 or 12 years of age and over. While the average number of white children in the first five grades is 1,415, there are only 907 in the eighth grade—a dropping out of more than one-third. The enrollment of the seventh grade, 1,127, represents a reduction from this five-year average of over one-fifth, and yet there are more children in the seventh grade than in all four years of the high school combined, 1,120.

It appears, therefore, that only about two-thirds of the white children in Wilmington receive as much as eight years of elementary schooling, slightly more than one-third enter high school, and fewer than one in ten get as far as the fourth year in high school.

The conditions in the colored schools are even less encouraging. The seventh grade enrolls less than one-half as many pupils as the average number in the first five grades, the eighth year less than one-fourth, and the first-year high school less than one-eighth.

From these figures alone it is possible to argue that in order to give all of these white boys and girls the equivalent of elementary

schooling, of the kind now offered, it will be necessary to increase the present facilities of grades 6, 7, and 8 by approximately 50 per cent; and if all are to receive high-school training, existing facilities must be increased more than threefold. For the colored schools corresponding expansions would be called for.

However, as indicated elsewhere in this report, the character of the program now offered in the schools should be modified and enriched in various ways and the quality improved, so then the simple extension of present facilities would not adequately meet the needs. Additional types of schooling are called for, better adapted to those boys and girls to whom the present program does not make sufficient appeal to retain them in school. This, in effect, constitutes the problem of the vocational education program, including the preliminary stages of prevocational education and vocational guidance, and the foundation work in the manual arts instruction of the lower grades.

The other point emphasized by these enrollment figures is that, so far as the public-school system is concerned, the great productive army of workers in the commercial and manufacturing establishments of Wilmington must at present be recruited almost exclusively from a supply of boys and girls who do not have the advantages of high-school education and to a very considerable extent from those who have not even completed the elementary school. That this situation constitutes a serious handicap to the commercial and industrial interests of the community is now coming to be fully appreciated by those directly affected, both employers and workers. This is a most hopeful sign, for most young persons are influenced directly by public opinion in their attitude toward the value and importance of education.

Over and over again in conferences with both employers and workers the point was made that the industries of Wilmington call for considerable numbers of men and women with high degrees of skill and general intelligence. An adequate supply of young persons having the requisite educational foundation for these qualifications has not only not been assured by the public schools of Wilmington, but it has not even been made possible in the past. To assist in remedying this lack is the definite objective and goal of the vocational education program recently inaugurated.

#### THE PREVOCATIONAL EDUCATION PROGRAM.

The fact that only about one-third of the children get as far as the first year in high school emphasizes the importance of appropriate measures for the later years of the elementary schools. This phase

of the problem should be attacked aggressively, since by its solution the larger numbers of children will be reached. They can be reached before the first break from the influence of the school, and a larger proportion of them can be retained in school than now.

It is now coming to be recognized that the school must provide more definite guidance and direction for children who are likely to leave school at or near the time when they may legally do so, and thus to face at a very early age the demands of industrial and commercial life. It is evident that the public elementary school offers more and better service to the pupil who can use it as a stepping-stone to further training in high school, college, or professional school than it does to the one who must make the best of it as preparing for a life career without the higher aid.

It is not possible to determine which children will continue through high school, for many children and their parents when questioned will make declaration of intentions which are subsequently not realized. Nevertheless, an effective plan of prevocational classes will assist many of those whose plans for the future are unsettled to see the advantages of further schooling, and especially schooling which aims at preparation for definite life careers, and it will confirm many others in their determination to secure as much preparation as possible.

#### AIMS OF PREVOCATIONAL CLASSES.

These classes are designed for children of about 12 to 16 years of age, and should have a three-fold aim: (1) To promote a better understanding by each individual of his own abilities and qualifications; (2) to promote a better understanding of the meaning of a life career, and of the available opportunities and means of earning a living; (3) to encourage the best possible use of individual abilities and available opportunities.

When work with these objects in view is undertaken in a more or less formal way as a classroom study and through individual conferences between teacher and pupil, with or without visits to commercial and industrial plants and individual studies and researches, it is referred to as "vocational guidance." It is next to impossible to lay this sort of responsibility upon an overburdened teacher, by injunction, and expect valuable results to follow, although profitable beginnings may be made by qualified teachers even in the primary grades. Until such time as a general plan of vocational guidance can be developed by the division of vocational education, individual teachers who have the disposition should receive all possible encouragement and assistance in undertaking work of this kind with their pupils.

When the studies in vocations are developed to the extent of providing special shop and laboratory equipment, so that the pupil may engage in the actual processes and activities selected for their educational value from a number of typical vocations, with sufficient time assigned to such practical work, it is believed that the pupil may be able to form for himself an intelligent relative estimate of his fitness for the various types of vocations in which he thus engages, as the basis for the choice of a life career. To such special class has been given the title of "prevocational class."

The prefix "pre" implies a special kind of training that precedes vocational training, and hence is not itself vocational. It is designed for the person who has not yet made a choice of vocation, or a choice of school course in preparation for vocation, and who is presumed to receive therefrom definite assistance in the making of such choice.

The latter part of the term "vocational" implies a considerable variety of activity and a broad outlook into possible future careers. There should be something corresponding to the introductory phases of each of the main fields of vocational education (professional, agricultural, commercial, industrial, and home making), the opportunity to enter upon a definite vocational course in some one of which presumably would be open as soon as a choice can be made.

#### BASIS OF SELECTION.

Within reasonable limits it may be argued that the lines of work included in the program for prevocational classes should be substantially the same for all communities, since the mobility of our population prevents any strict limitation of vocational opportunities. The logical plan will at least include activities broadly typical of occupations which are of greatest significance to the community and the surrounding territory.

To assist in determining what these occupations are, the following tables have been prepared from figures obtained from the Central Labor Union and the Manufacturers' Association, respectively:

*Approximate memberships of unions affiliated with the American Federation of Labor in Wilmington.*

Bakery workers -----	75	Building trades--Continued.	
Building trades-----	3, 140	Painters-----	350
Carpenters-----	1, 500	House-----	200
House and shop- 1, 200		Car and ship-----	150
Ship-----	300	Lathers-----	40
Bricklayers-----	250	Slate and tile roofers-----	50
Sheet-metal workers-----	150	Hod carriers, laborers-----	250
Plumbers-----	150	Railroad shops-----	3, 100
Electrical workers-----	200	Blacksmiths-----	200
Plasterers, cement finishers- 100		Sheet-metal workers-----	200



*Approximate memberships of unions affiliated with the American Federation of Labor in Wilmington—Continued.*

Railroad shops—Continued.			Miscellaneous—Continued.		
Carmen .....	900		Moving-picture operators .....	25	
Carmen (Pullman shops) .....	600		Steam engineers .....	25	
Boiler makers .....	250		Colored shipyard workers .....	100	
Electrical workers .....	150		Insulation and asbestos work- ers .....	40	
Machinists .....	800		Barbers .....	100	
Railroad employees .....	2, 800		Bartenders .....	200	
Maintenance of way .....	2, 200		Musicians .....	400	
Signalmen .....	200		Stage employees .....	75	
Trolleyman .....	400		Tailors .....	30	
Shipyard employees .....	4, 600		Telegraphers .....	50	
Blacksmiths .....	250		Federal employees .....	150	
Boiler makers, ship fitters .....	4, 000		Men .....	50	
Sheet-metal workers .....	150		Women .....	100	
Marine plumbers .....	200		Railroad clerks .....	300	
Machine trades .....	450				
Machinists .....	250		Total .....	19, 460	
Pattern makers .....	150		In State, outside of Wilmington .....	2, 000	
Iron, steel, and tin .....	50		Railroad organizations, not affiliated .....	3, 000	
Leather workers .....	3, 500				
Miscellaneous .....	1, 795		Grand total .....	24, 460	
Bottling workers .....	150				
Printers .....	150				

*Estimated number of employees in manufacturing plants.*

Product manufactured.	Plants.	Empley- ees.	Products manufactured.	Plants.	Empley- ees.
Railroad and ship work .....	4	4, 898	Leather (morocco) .....	10	3, 072
Railroad cars, woodwork .....	2	1, 165	Chemicals .....	3	1, 451
Ships, railroad cars .....	1	3, 113	Miscellaneous .....	19	3, 485
Ships, paper machinery .....	1	620			
Iron and steel .....	17	2, 513	Paper twine .....	2	233
Machine shops .....	8	382	Vulcanized fiber .....	6	1792
Castings, car wheels .....	3	1, 101	Rubber hose, belts .....	2	517
Boilers .....	1	196	Brewery .....	3	64
Steam fitters .....	1	90	Bakery .....	2	25
Plumbers' supplies .....	1	194	Wood pulp .....	1	245
Iron, steel .....	3	550	Underwear, textiles .....	2	460
			Electric power plant .....	1	149
			Total .....	53	15, 419

The chief industries in Wilmington include the building of ships and railroad cars; tanning and finishing leather, especially morocco; manufacture of chemicals; building construction; certain phases of iron, steel, and machine manufacturing. In addition to the employees peculiar to the ship yards, tanneries, and chemical works, practically all of the usual building and machine trades are represented in considerable numbers.

These lists do not afford a complete list of the vocational opportunities in Wilmington, since the commercial and shipping interests are not represented, nor those occupations classed by the census as "professional service," and "domestic and personal service." Diligent search failed to reveal any definite information concerning these groups later than 1915.

In developing a plan for prevocational classes the following lines of work should all be carefully considered, and as many of these included as circumstances will permit: For boys—mechanical, architectural, and ship drafting; carpentry, cabinetmaking, pattern making; forging, machine shop, foundry; sheet metal, electrical construction, automobile maintenance and repairing; printing, salesmanship, business organization, and methods; gardening; agriculture. For girls—commercial subjects, salesmanship, and business methods; cooking, sewing, and home making.

#### ESSENTIAL FEATURES.

Experience in other school systems has shown that certain features are essential to success in the conduct of prevocational classes.

1. At least one-half of the time in school should be devoted to the various lines of practical and recreational activities. Sufficient time must be allowed to accomplish definite results in each occupational field. A 6-hour school day, with two sessions of 3 hours each, has found favor in a number of places.

2. One-half of the time should be given to related work in language, mathematics, elementary science, industrial geography, industrial history, and, in general, to preparation for intelligent understanding of and active participation in civic and social responsibilities.

3. The work should be offered, in the beginning at least, on an elective basis, but all boys and girls who are likely to profit by the instruction should be encouraged to take it. This department should be maintained on the same basis of dignified and serious endeavor as any other, and should not be considered as a special provision for incorrigibles or for pupils physically or mentally backward.

4. As already indicated, there must be variety to the practical activities undertaken in order to give insight into a number of typical vocational fields.

5. Teachers should be chosen who have had sufficient experience in the occupations represented in the course of study to relate the instruction to actual conditions in the industrial and commercial world. The closest relationship should be maintained also between the shopwork and the related work. The success of prevocational work is dependent in large degree upon the teacher's power to hold and interest the pupils and upon qualities of adaptability, originality, initiative, and keen interest in the successful handling of the problem.

6. There should not be less than one year, and preferably two years (the seventh and eighth), during which the pupil engages in several typical lines of shopwork or laboratory work successively,

followed by a period of one year or more in which he may specialize in a chosen line.

7. The pupils should be grouped in sections of not to exceed 15 to 18 each in order to permit a degree of individual instruction.

At least two prevocational centers for both boys and girls in the white schools and one for the colored pupils should be provided, and developed along the lines followed so successfully by the present director of industrial education in connection with the public schools of Seattle. Each center should provide facilities for practical shop or laboratory work in at least four lines, selected from those listed above. The centers for colored pupils should take special account of those occupations open to colored workers in Wilmington.

For example, Center No. 1 for white boys might contain the following units: (1) Woodworking shop, for carpentry, cabinetmaking, patternmaking; (2) machine-shop benchwork, sheet metal; (3) electrical construction; (4) automobile maintenance and repair. Center No. 2 might contain (1) machine shop; (2) forge shop; sheet metal; (3) printing; (4) commercial subjects, salesmanship. Each center should provide adequate facilities for instruction in related freehand and mechanical drawing.

It is impractical to estimate the cost of equipment in advance. It will hardly be less than \$2,000 to \$5,000 for a center for boys' classes, depending on the types of work selected, and somewhat less for a center for girls' classes.

#### THE VOCATIONAL EDUCATION PROGRAM.

After a system of prevocational classes has been functioning efficiently for a reasonable time, supported in turn on a foundation of appropriate manual training, the problem of the vocational program will be much simpler than it is now. Young people will come to the age of entering upon wage earning with some definite idea as to what they want to do, and what they are fitted to do, for a life work, as well as what opportunities are open to them, and most of them will have at least the beginnings of preparation for some useful service.

This ideal condition is perhaps far in the distance as yet. Meanwhile, the division of vocational education must address itself to the task of rendering the maximum of immediate service, as well as laying the broad foundations suggested in the preceding paragraphs. For this purpose the following funds are available for the school year 1920-1921:

State and Federal aid.....	\$11,500
Salaries of teachers.....	\$7,500
Teacher training and supervision.....	4,000

City school funds.....	\$5, 225
Manufacturers' Association.....	20, 000
Equipment.....	\$15, 000
Maintenance.....	5, 000
Total.....	36, 725

These funds have been budgeted as follows:

Evening classes.....	\$7, 000
Part-time and cooperative classes.....	6, 500
Day-trade classes.....	2, 200
New equipment.....	14, 850
Office of director.....	6, 175

#### EVENING CLASSES.

For the current school year it has been very wisely decided to emphasize the development of evening classes, part-time classes, and cooperative classes. Undoubtedly the same policy should prevail for at least another year, for reasons that will appear in the following discussion.

The generous and enthusiastic response to the announcement of the evening vocational classes more than justifies the importance ascribed to this phase of the program in the report of the director. The new director, arriving upon the scene late in the fall, was confronted with the necessity of deciding whether to open evening classes almost immediately, without adequate opportunity to organize an efficient corps of teachers and to complete other necessary arrangements, or to delay the opening until after the Christmas holidays, when everything might be prepared on a more leisurely basis. Even a hasty review of the situation indicated that a real need existed, and the courageous decision was made to proceed at once, even at some risk of failure to meet all expectations in full. The first term's experience will justify this step, though at the cost of strenuous exertion on the part of all concerned. Within a few nights the enrollment exceeded 400, nearly double that of the previous year, and lack of accommodations made it necessary to discontinue receiving new students. The fact that this condition came about as the result of but a few days' effort and a very modest advertising campaign clearly indicates the desirability of further expansion..

It appears that no more funds are available for the current year for the payment of salaries of teachers. Except for this, the service rendered by the evening school could be doubled at practically no additional expense beyond that incurred for salaries. Classes are now held two evenings per week, Tuesdays and Thursdays, from 7.30 to 9.30 o'clock. By opening other classes on Monday and Wed-

nesday evenings the same rooms and equipment could serve a second school as large as that now at work. Unquestionably, next year's budget should provide for double the present year's enrollment in evening classes; indeed, the experience of the remainder of the year may dictate even further increases.

Two recommendations have already been made by the director of vocational education which should receive favorable consideration:

(1) The first relates to greatly enlarging the scope of the evening school. There is evident demand for general educational subjects, including such work in the common branches as is given in the upper grades of the elementary school, as well as many subjects offered in a good high-school course. Many persons who left school with only a meager common schooling, and who now feel the need, are unable to return to the day schools. In many cases they need instruction in general subjects before they can profitably undertake the special courses designed to advance them in their vocations.

The field of education for business should be entered also in an aggressive way. Courses in salesmanship, modern filing systems, office practice, use of calculating machines, mimeograph, and other devices, and commercial law, would meet a very real need. In view of the anticipated development of Wilmington as an ocean port, courses of instruction looking toward preparation for foreign trade constitute an inviting field.

In addition, there are many important industrial lines which have not yet been entered, because of lack of funds. These include at least the following: Automobile maintenance and repair; interior decorating, painting, sign writing; trade extension shop courses in the woodworking trades, machine shop, and others for which shop equipment may become available hereafter; industrial chemistry, for employees in explosives, dyes, leather, and chemical works, painters, and others; courses especially designed for women employed in industry, to be determined after further investigation.

(2) The second recommendation relates to the proper coordination of all evening-school work. "There is much in common in the evening class work of the department of Americanization, the elementary evening school, and the evening vocational school." Wherever possible these should all support and reinforce one another, and the same should be true of the relations between these and the day schools.

No lack or weakening of the spirit of cooperation should be permitted to embarrass any undertaking in any part of the school system. It should be regarded as extravagance, for example, to equip special shops and science laboratories for evening classes, to be used 4 to 8 hours weekly, if it is possible by reasonable readjustments and

mutual compromise to adapt these features of the day-school equipment to serve both needs.

One of the important arguments in favor of the evening school is its relatively low cost per student, due chiefly to the fact that it utilizes facilities that are already in existence, and that are necessarily a part of a school system, whether evening classes are maintained or not. Efficient administration of evening classes involves the use of every possible item of equipment already at hand before proceeding further.

#### PART-TIME CLASSES.

From the standpoint of rendering the maximum of service to the largest number of individuals at the minimum of cost, the part-time classes are probably the most important phase of the vocational education program. The plan has met with great favor in all parts of the country, and 25 States have now enacted legislation providing for compulsory attendance upon part-time classes, under varying conditions, by youths in wage-earning employment. The number of hours per week which the children are required to spend in school upon the employers' time varies in the different States from 4 to 8. Beginning with the age at which children may be legally employed, the period of compulsory attendance extends to 16, 17, and 18 years of age in different States.

In Wilmington at present part-time classes are maintained at the Harlan plant of the Bethlehem Shipbuilding Corporation, 92 apprentices, and at the Pusey & Jones plant, building ships and machinery for the manufacture of paper, 36 apprentices. These boys receive 4 hours of instruction in general continuation school subjects every Saturday morning in classrooms provided at the plants. Six part-time teachers and a supervisor are furnished by the public schools and two teachers by one of the plants.

The work observed here seemed on the whole to be of high grade, with an excellent spirit of earnest application prevailing. In one or two instances the classes are too large for the best results. In several classrooms the tables and seats are so arranged as to make it impossible for the instructor to get around among the students for individual attention. Under such conditions there is always danger of too much use of lecture and class demonstration methods.

The part-time plan should be extended as rapidly as possible to other industrial plants, and also to stores, office buildings, and other places where young persons are employed. To meet the probable needs in Wilmington for part-time classes and cooperative classes, to be discussed later, will require the full time of the supervisor for an indefinite period.

Much time and arduous effort are required to locate and interview the boys and girls and their employers, to perfect arrangements for classrooms, with their simple but necessary equipment, schedules of class meetings, and outlines of courses of instruction, to discover and employ properly qualified teachers, and finally to give the needed supervision after the classes are actually in operation.

#### COOPERATIVE CLASSES.

Closely related to that type of continuation class referred to above, usually designated "part-time class," is another type of part-time continuation class which for convenience is called a "cooperative class," in order to distinguish it from the other. In fact, cooperation by and between the school system and the employer, or group of employers, is an essential part of both schemes.

The essential features of the cooperative class include:

(1) A definite arrangement by and between the school system and one or more industrial plants, stores, or offices, in accordance with which the theoretical instruction is given by the school and the practical experience is given in the place of employment, and both are coordinated in a systematic and progressive educational program.

(2) Willingness on the part of the employer to make such adjustments in equipment and processes and methods as are necessary for the promotion of the educational ends.

(3) Willingness on the part of the school to eliminate nonessentials from the course of study and to base theoretical instruction on actual practice, and sufficient skill in organization to administer the plan successfully.

(4) Careful selection of employers, instructors, and student-workers who are capable of being inspired with a vision of the responsibilities as well as possibilities of the plan.

(5) Administration of the device of alternating periods in such a way as to secure continuous and progressive action on the process or job in the factory, as well as in the work of the student and the instructor in the school.

In brief, the plan provides that the students in any class shall be divided into two groups, one group being in school while the other is at work. At the end of each period (one week or two weeks) the groups exchange places, and thus alternate between school attendance and wage-earning employment. The student-workers are arranged in pairs, so that the work in the place of employment is kept going continuously.

The special advantages of the cooperative plan may be summarized as follows:

(1) The safeguards thrown about the young people in their places of employment through the supervision exercised by the school and the cooperation of the employers show an almost unbelievable improvement over the conditions hitherto characterizing the employment of minors in many places.

(2) The cooperative plan makes it possible for some boys and girls to continue in school, because of wages earned on half time. Prolonging the period of active connection with the school and of contact with sympathetic teachers and advisers confers an incalculable benefit on growing boys and girls and should lead to a permanent impetus to better things.

(3) The plan doubtless induces some to remain in school, because the school work is thus made more interesting and the student can see a more direct relation between schooling and the promotion of his own interests.

(4) The experiences involved promote a more earnest and thoughtful attitude toward work and the responsibilities of life.

(5) The plan discourages idleness and unwholesome use of time, since the longer school day and year are fully occupied with interesting activities.

(6) The opportunity to engage in gainful employment of half time, under suitable auspices, has a definite prevocational value, assisting young persons to discover their tastes and probable aptitudes.

(7) The successful operation of a cooperative school or class affords a convincing demonstration that a reasonable amount of work, under proper conditions, can be made to contribute definitely to the development of youth instead of being, as frequently heretofore, a demoralizing, disheartening, and stunting influence.

(8) The plan gives the student, at the very least, a foothold in some industry or occupation, so that he does not feel lost when the time comes to leave school and take up the responsibilities of self support.

(9) It should be emphasized that this plan does not neglect the need for general education, but insures to each individual an amount of cultural and liberalizing education sufficient to serve as a foundation for further study, if he finds it possible to continue his education; he certainly gets more of the culture side of education than he would if he had left school entirely to go to work.

In a recent study Dr. George E. Myers has analyzed "the benefits which should be definitely planned for" in organizing part-time classes.<sup>2</sup> Since these are equally applicable to the cooperative class they are included here, in abridged form, as follows:

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<sup>2</sup> The Compulsory Part-time School. Mich. State Board of Control for Voca. Educ., Bul. 212, May, 1920, p. 7.



(1) To increase the technical efficiency of young workers by providing, as far as practicable, instruction along the lines of their employment.

(2) To help boys and girls carry over and interpret in their employment what they learned in the regular day schools.

(3) To help employed boys and girls prepare for promotion in their places of employment, or elsewhere if their places of employment do not afford the opportunity.

(4) To help young workers adjust themselves to industrial and business life.

(5) To fix in the minds of young workers that education does not end when work begins.

(6) To provide training for better Americanization.

(7) To instill sound ideas of our economic and industrial organization.

(8) To help boys and girls find the kind of employment for which they are fitted.

The size and importance of the field ready for cultivation by the part-time and cooperative classes may be inferred from the figures already cited, which indicate that at each age from 14 years to 18 years there are in Wilmington from 2 to 10 times as many boys and girls idle or at work as there are in school. The authorities are to be commended for the creditable beginning already made in this branch of the work.

#### ALL-DAY TRADE CLASSES.

There remains one other type of vocational class which may be utilized in the cultivation of this field—the all-day trade class. The establishment of a day trade school at an early date was evidently contemplated by the Manufacturers' Association as a part of the program for which it contributed the fund referred to above.

Without hesitation it is recommended that the development of day trade classes be subordinated to the other phases of the vocational education program, outlined in the preceding pages, for the following reasons:

(1) Day trade classes are far more expensive per student enrolled than any of the other plans under discussion. A far greater service is rendered to the industrial and commercial interests of Wilmington as well as to the individuals concerned, with the expenditure of a given sum of money, by utilizing these other plans of instruction in preference to the day trade school.

(2) Experience of other cities with trade schools shows unmistakably that there is great waste of time, effort, and money involved

in providing all-day trade instruction to boys and girls who have not had adequate preliminary training upon which to base intelligent choice of the occupation for which preparation is sought. Discovery of lack of adaptability to the chosen trade after some weeks or months have been spent in the course is the experience of many boys and girls who come to the trade school with only vague notions as to what they can do or want to become.

(3) Sufficient data are not at hand with reference to actual industrial needs in Wilmington to afford a basis for planning a day trade school. More definite information than is yet available must be secured as to the trades in which there is an assured demand for the product of a trade school. The director is now gathering this information, and will be in position from time to time to make definite recommendations. Evidence has already been secured to show that a day trade class in machine shop will meet a real demand. On this showing a class will be organized as soon as the necessary arrangements can be made. Other classes should be started only when the demand is equally clear.

(4) Enrollment in two-year or three-year day trade classes should not be open to boys or girls who are so young that they will probably graduate before they reach the age of advantageous entrance into the trades for which they are prepared. Since this latter age is in some instances not less than 18 years, the organization of such classes would still leave a gap unprovided for below between the age at which many children leave the regular public school and the age at which they could be admitted to the trade school.

(5) Efficient and economical administration of the day trade school demands a carefully devised plan of preparatory measures, or "feeders," which will insure a supply of students who know definitely what they want and why, and which will sift out those who will probably not profit by the expensive instruction provided.

(6) The efficient development of part-time classes, cooperative classes, and evening classes will for the time being take care of a large part of the immediate demand for vocational instruction, while the development of the prevocational program, based on a sound foundation of manual training throughout the entire school system, will insure for the future a supply of boys and girls qualified for entrance upon day trade classes.

(7) Until such a fully coordinated school system is in effective operation, it is doubtful whether a sufficient number of applicants for day trade classes can be found. Promising candidates will not come in large numbers from the idle and the loafers, and not many who are employed can be induced to leave their jobs and their wages to enter an all-day school again.

(8) Finally, this is not a favorable time to enter the market for tools and machinery, nor to erect new buildings, except for operations which can not well be deferred.

For these reasons the all-day trade classes should be the last feature of the vocational education program to be pushed, and each such class should be organized only after securing evidence of a definite demand to be met.

#### VOCATIONAL EDUCATION FOR GIRLS AND WOMEN.

This discussion assumes that the vocational education program in Wilmington will endeavor to meet the needs of girls and women, as well as those of men and boys. In the country as a whole much more has been done for the latter than for the former. One reason is that vocational education for women is the twofold one of preparation for home making as well as wage earning.

A most significant and promising study of this problem is now being made by a committee of the National Society for Vocational Education, Miss Cleo Murtland, chairman. In presenting a preliminary report at the Chicago meeting of the society in February, 1920, the committee said:

Vocational education for trade and industrial occupations for women should be greatly extended in order that each individual girl or woman may be assured the opportunity of doing the highest type of productive work of which she is capable during the period previous to marriage, or if she does not marry, for the period of her working life, or for the married woman who, because of widowhood, desertion, childlessness, or some other deviation from normal married life, returns to industry as a wage earner.

The further suggestions of this committee are recommended as a guide in the formulation of this part of the program for Wilmington.

#### THE MANUAL TRAINING PROGRAM.

Too much importance can not be attached to the development of a system of manual training throughout the schools, both for its general educational value and as an essential foundation for the subsequent vocational education program. Manual training is here used in the accepted sense of an educational agency involving not only a method of instruction, and a content of valuable subject matter, but a means of self-directed, purposeful activity.

The object in view should be a well-organized and articulated scheme of handwork, incorporating the best features applicable to local conditions that have been developed by progressive cities, with lines of work of sufficient variety and scope to meet the approval of modern educational thought and adapted to the capacities and needs of children at successive stages of growth.

To Wilmington belongs the distinction of being one of the earliest cities to introduce manual training into the high school, the date being 1889. After some years the forge shop was abandoned, but the woodworking shop, machine shop, and mechanical drawing remain. The equipment needs overhauling, as practically no additions have been made in 20 years.

The colored high school has one small woodworking shop, inadequately equipped, and badly overcrowded.

Two of the white elementary schools are provided with shops, and one other school has two workbenches. Pupils from schools not now provided with shops are accommodated in the existing shops at the other schools.

Elementary handwork is nominally carried on in the lower grades, and mechanical drawing and benchwork in wood in the upper grades. There has been no supervisor for the latter, however, and the former is under the direction of the supervisor of drawing, who had but recently arrived in Wilmington and had not yet organized her work.

For these reasons it is unfair to base a report on the work observed at the time this survey was made. Instead, the following general suggestions are offered to indicate the directions along which further development should take place.

#### ELEMENTARY HANDWORK.

Handwork in the elementary school should be employed in its various phases for the accomplishment of at least three distinct educational ends: (1) To develop manipulative skill, and the ability to "do" things; (2) to impart knowledge of materials and processes of construction; and (3) to vitilize the instruction in various subjects of study, such, geography, history, and language.

In the earlier grades the best results are secured when the handwork is taught by the regular grade teachers. It is much easier for these teachers to relate the work to the other studies and activities of the children. With the progress of the children through the grades, however, the work becomes more and more complicated, and the tools and processes more difficult of manipulation. In time the point is reached beyond which it is impracticable to expect the grade teacher to acquire the necessary technical skill and knowledge to carry on this work in addition to all the other requirements of her position. From this point, probably the fifth grade, the situation may be met by employing special teachers or by a plan of departmentalized teaching.

During the earlier grades the handwork should be substantially the same for boys and girls. With the beginning of departmental teaching a gradual differentiation in the work should be introduced.

In general, the interests of the girls will tend in the direction of sewing, cooking, and home making, and the interests of the boys toward shopwork and drafting. For obvious reasons the teachers of these special subjects for boys in the upper grades should be men.

In the lower grades not less than 30 to 60 minutes per week should be allowed for handwork, but a more liberal time allowance should be made just as soon as suitable equipment can be provided and teachers are prepared to do the work. Ultimately from two to three hours per week should be available. Supplies of materials in sufficient variety to make the work profitable and educational should be provided by the board.

#### IN THE UPPER GRADES.

Even more time must be allowed for manual training in the upper grades if the expected results are to be secured, and if boys and girls who now drop out of school in such large numbers are to be retained. With the right kind of equipment, properly qualified men teachers, and appropriately modified courses of study, from 5 to 7 hours weekly may be devoted to manual training in grades above the sixth; and in the prevocational centers, discussed elsewhere, at least one-half the school time should be devoted to practical activities in shop, laboratory, and drafting room.

Pending the establishment of prevocational centers, and for boys for whom such centers are not available, the manual training opportunities should be materially extended and enriched. Beginning with the introduction of departmental teaching, the lines of work should include thin wood, bookbinding, printing, clay, cement, plaster, and such other groups as further study of conditions may indicate.

Beginning with the seventh year the boys should carry still further the problems in printing and bookbinding, and to these should be added suitable work in copper, brass, iron, leather, cement and concrete, electricity, benchwork in wood, and mechanical drawing. The woodwork may well include some simple framing and carpentry. All the shopwork should be made as practical as possible.

The instruction in shopwork and mechanical drawing as now given in the high school could be improved and made more serviceable to the students if modified somewhat along the following lines: (1) The instructors should do less of the thinking and planning, and even in some cases execution, of the projects undertaken; (2) more self-directed activity should be demanded of the students; (3) more time and attention could profitably be devoted to study of sources and methods of manufacture of materials used in the shop and in industry, development and use of tools and machines, and kindred topics;

(4) the projects, processes, and methods of the manual-training shop could be considered in their relation to the best current practice in industry; (5) some of the present classes are too large to permit of these suggestions being carried out, or to permit of that degree of individual instruction which is an essential feature of the best manual-training practice.

#### SUMMARY OF RECOMMENDATIONS AND SUGGESTIONS.

The following recommendations made by the director of vocational education, which are now being carried out, are heartily approved and indorsed:

(1) Emphasis for the current year upon evening classes, part-time classes, and cooperative classes, and further extension of all of these next year.

(2) Addition of evening classes in home making for women.

(3) Addition as soon as practicable of evening classes in general elementary and high-school subjects, machine shop, woodworking trades, automobile mechanics, electrical construction, commercial subjects.

(4) Coordination of all evening-school activities.

(5) A conservative policy in the development of day trade classes.

(6) Organization, as soon as arrangements can be perfected, of a day trade class in machine shop, and possibly automobile mechanics and electrical construction.

(7) Recognition throughout the entire program of the needs of girls and women as well as of boys and men.

(8) Rearrangement of present wood shop and machine shop in order to facilitate both day and evening vocational instruction in these shops.

(9) Adoption of a plan of stated conferences with teachers for discussion of the problems of vocational education and ways and means of improving the quality of the service rendered.

(10) Organization of advisory committees for counsel and suggestion in the further development of the vocational education program.

(11) A continuous study of the industries of Wilmington, in which these advisory committees can render substantial assistance, for the purpose of securing data upon which to determine further action.

In addition, the following supplementary conclusions and recommendations are offered:

(1) The rapid falling off in enrollment of children after the fifth grade in the Wilmington schools calls for a type of schooling better adapted to those boys and girls to whom the present program does not make sufficient appeal to retain them in school.

(2) To assist in meeting this need constitutes, in effect, the problem of the vocational education program, including the preliminary stages of prevocational education and vocational guidance, and the foundation work in manual training.

(3) The great productive army of workers in the commercial and industrial establishments of Wilmington must at present be recruited almost exclusively from a supply of boys and girls who do not have the advantages of high-school education, and to a very considerable extent from those who have not even completed the elementary school.

(4) There is evidence that the industries of Wilmington call for considerable numbers of workers having high degrees of skill and general intelligence.

(5) Appropriate modifications of the work of the later years of the elementary school should be emphasized.

(6) For these years an effective plan of prevocational classes should be formulated, with an accompanying scheme of vocational guidance.

(7) At least two prevocational centers for white pupils and one for colored pupils should be provided.

(8) The aim in view should be to coordinate the manual training program, the prevocational program, and the vocational educational program, so that ultimately the latter may look to the first two for a supply of applicants qualified to receive the maximum advantages from the opportunities that may be offered.

(9) The service rendered by the evening school could be doubled at practically no additional expense beyond that for salaries of teachers, by opening four evenings per week instead of two.

(10) Existing facilities of the day schools should be made available for evening classes wherever this can be arranged without serious loss of efficiency in the day schools.

(11) The plan of part-time and cooperative classes should be extended as rapidly as possible to other industrial plants, and also to stores, office buildings, and other places.

(12) The development of day trade classes should be subordinated to the other phases of the vocational education program.

(13) A comprehensive, well-organized scheme of manual training should be developed in the school system, incorporating the plans and methods of the best modern practice.

(14) To carry into effect the suggestions of this report, further definite provision should be made for administration.

(15) The most efficient and practicable form of organization for the administrative staff can be determined only by the superintendent in consultation with the director of vocational education. With-

out venturing specific suggestion on this point, it may be helpful to call attention to certain details of the administrative problem which must be met:

(a) The director of vocational education should be relieved of at least part of the present burden of the evening classes. This might be accomplished by the assignment of part of these duties, with others, to an assistant director, or to a supervisor of evening vocational classes; or by the appointment of a principal, to have administrative responsibility for all evening classes.

(b) The full time of an assistant director, or supervisor of continuation classes, will be required for looking after the part-time classes and cooperative classes.

(c) The director should be relieved of much of the detail work involved in organizing and conducting—(1) the proposed day trade classes, (2) the prevocational centers, and (3) the manual training program. In each of these cases the need can probably be met in the early stages of development by appointing certain teachers having qualifications and training for administrative work, and assigning to them certain of these responsibilities with their teaching duties, on a part-time basis. The supervisor of drawing should doubtless be given definite responsibility for the elementary hand-work.

(d) The appointment of a capable secretary to the director, who may in time be trained to handle many administrative details, is practically indispensable.

(e) In order for the vocational education program to succeed, upon which Wilmington has embarked with so much of promise, the director must be relieved of as much as possible of minor administrative details. To discharge his function he must be free to study the situation intensely in all its phases, to keep constantly in hand the many and varied activities, and especially to keep in close personal contact with the commercial and industrial interests of the community.

(16) Since there is required an immense amount of travel about the city, for the purpose of visiting schools, factories, and other places of employment, locating available supplies, interviewing prospective teachers, and for other errands, on the part both of the director and various subordinates, one of the wisest and most economical expenditures that might be made is the immediate investment in an automobile for the exclusive use of the vocational education department on official school business.

(17) In view of the many other needs of the Wilmington schools, discussed in other sections of this report, it is not to be expected that the vocational education program outlined herein can be carried out in full immediately, nor in all probability within five years.



#### 4. MUSIC IN THE WILMINGTON SCHOOLS.

The statements made in this report rest upon observations made in 27 out of the 31 schools of all kinds that comprise the public-school system of Wilmington. In these visits almost all classes in elementary schools, representative classes in grammar schools, and all types of work maintained in the high school were heard. In addition inquiries were made into conditions in the State, the community, and the school system of Wilmington at large, in so far as these might affect the music specifically in the Wilmington public schools.

##### WHITE ELEMENTARY SCHOOLS.

##### AIMS AND PROCESSES OF INSTRUCTION.

No attempt need be made to define the large or ultimate aim appropriate to instruction in music. A measure of such discussion has been included in reports of surveys of music in other cities, as published by the United States Bureau of Education, and in other publications by the bureau. The reader is referred in particular to Bulletin, 1917, No. 46, "The Public School System of San Francisco, California"; Bulletin, 1917, No. 49, "Music in Secondary Schools"; Bulletin, 1918, No. 15, "Educational Survey of Elyria, Ohio"; Bulletin, 1919, No. 50, pt. 5, Music, "The Public School System of Memphis, Tennessee."

The near and partial ends that are obviously sought in Wilmington, judged by careful and extensive observations of what is actually being done in the schools, may be stated as follows:

1. To give every child the use of his singing voice and pleasure in song as a means of expression.
2. To give all children power to read (at sight) and to write readily the notational language of music.

The validity of these aims is not open to question. Much must be said, however, in favor of adding and actively furthering additional aims; and the methods adopted as necessary or helpful to the attainment of these two aims, and the degree of success realized in Wilmington in their attainment, must be subjected to analysis.

##### MONOTONES.

In order to give every child the use of his singing voice it is necessary at the outset, particularly with children 6 years of age who are just entering school, to correct the monotones. The number of these in the Wilmington schools is very large.

It should be understood that the monotone, especially at the age of 6, is usually not aurally defective. The pupil has, in all probability,

as correct an ear as the children who sing in tune, but lacks the ability to make the proper muscular coordinations necessary to produce the tones heard. Instead the pupil uses his speaking voice (which covers, generally stated, a range of little more than a major third, centered on middle C) for purposes of singing, with most unsatisfactory results. But an easy and usually speedy cure is quite possible. For practical purposes it may be said that the child merely needs to have revealed to him a new voice (which all children have) that is produced very largely over the arch of the palate instead of coming, as the speaking voice of such a child does, almost wholly straight forward from the throat below the arch of the palate. Unless the child belongs to the negligibly small group of those who are tone deaf, his acquisition of this other voice means his vocal emancipation.

Full allowance must be made for the fact that the music survey began with the fourth week only of a new school year. At such time the monotonies would be relatively numerous. Yet after this fact is taken into consideration it still is true that much improvement may be made in the processes that are undertaken in Wilmington for their cure.

The children classified as monotonies in 1B rooms usually constituted from 20 to 30 per cent of all the children in the room. In one or two cases only it ascended to 50 per cent, and in one extreme case in a foreign quarter, where most of the children did not know the English language, and were on half-day sessions besides, it was 66 $\frac{2}{3}$  per cent. These extreme cases should not be thought of as representative, however. The uniformity of the lower percentage, which is still much too high, is of more serious nature.

By the regular method of procedure in Wilmington the monotonies are brought forward in the room at the beginning of each music lesson, and formed into a group of "listeners." Such a plan is open to serious question. Its effect upon the child's evaluation of himself with relation to music may be lastingly unfavorable. Though every sympathetic effort was made to avoid wounding in the slightest degree the sensibilities of the children, it was impossible to avoid at times the feeling that they felt themselves segregated for somewhat uncomplimentary reasons. They did not have the atmosphere of success. Again, while a monotone must listen in order to learn, he must also practice singing. The amount of listening done by these children was excessively great; the amount of singing was negligible. They were therefore becoming reticent as well as a little self-conscious.

The instruction observed was inadequate and not very successful. It was really a test or examination rather than instruction. The teacher would sound a tone to the syllable "loo," and the children,

each in turn, would try to match it. The tone was usually C (third space, treble clef), which is too low to convey the right sense of vocal adjustment to the child. Some one or two children in the group often imitated correctly, and occasionally these were tried further on bits of melody, and if again successful were returned to the company of singers. But the ones who failed were not improved then and there. They were often tried repeatedly on the same effort, perhaps with some injunction to sing or think high, but no new resources for their cure were exhibited. The impression gained from observation of many such lessons was that the monotones gradually cured themselves by imitating other members of the class rather than as the result of the teacher's instruction. Of course, they will do this if given time; but they should be given much more direct help by the teacher. Two-thirds of the monotones in first-year classes in Wilmington could be cured in six weeks. Meanwhile they should sit with their companions and sing as well as they can and daily receive definite instruction that helps them. The dissonance they create in the concerted singing may be minimized by asking them to sing softly (which they should do anyway for their own benefit), and the instruction should be of a nature that will make them feel that they have an unusually difficult accomplishment before them which they may well be proud to master, rather than that they are examples of subnormal capability.

#### CONCERTED SINGING.

In order to give children pleasure in song as a means of expression, not only must monotones be cured, but the children must sing interesting songs, of some degree of permanent charm, with voices that are easily and pleasantly produced and that will be pleasant to hear. By good example and instruction and by the use of good song material these requirements are admirably fulfilled in Wilmington up to the seventh or eighth year. The singing is free and buoyant, the tone clear and full without being forced, the spirit in singing songs is animated. The degree of artistic sympathy and corresponding nuance hardly deserves equally high praise, but is very commendable. It falls short of the excellence of the vocal practice partly because of the effect upon the musical conceptions of the pupils of much rigidly formal practice upon conventional exercises, and partly because physical delight in singing sometimes outweighs the pleasure that might be taken in the more quiet enjoyment of the artistic graces of the song. The singing is sometimes vocally exuberant without being sensitively artistic. Even the interpretation, however, is very good in most rooms and is never positively poor. In School No. 9 it is extraordinarily beautiful; and a group or two in School 30 sang but little less beautifully.

But in the eighth year, and to a lesser extent in the seventh, the voice work fails with one group of pupils, namely, the boys with changing voices; and the uncertain performance of these often threatens the vocal as well as the musical practice of many other members of the class. Nothing, indeed, can entirely overcome the excellent vocal habits and standards created in the lower grades, especially in the third, fourth, fifth, and sixth years. But the music textbooks throughout the entire school system are undergraded—a condition that will be dwelt upon at length when sight singing is discussed—and books of music for treble voices only are almost uniformly used with seventh and eighth grade classes that contain many changing and changed voices. Much comparatively unsatisfactory singing is the result.

In Wilmington the seventh and eighth grade pupils are grouped in four grammar schools, in which work is departmentalized. Such assembling of large groups of seventh and eighth grade pupils always results in exceptionally favorable opportunities for work in music. Pupils in these two grades are on the middle ground that separates childhood from maturity. In music they are completing the technical and theoretical instruction begun six or seven years before, but no less do they instinctively desire and deserve a type of music cast in larger and freer forms than those used in the short songs of childhood, and conceived in the spirit of the mass chorus rather than in that of the short exercise or song for unison sight singing. Congregated in large numbers they may advantageously be given ample opportunity to satisfy this proper and rapidly developing interest.

But this opportunity in the grammar schools in Wilmington, which contain all the seventh and eighth grade pupils, is quite lost so far as care of the changing voices is concerned. The ignoring of these leads to results much graver than the mere retardation of the vocal development of the small number of pupils directly affected. The development of their general musical knowledge and understanding also suffers. For six or seven years (in the grades below) these pupils have looked at notes on the treble clef and translated them into tones that represented a certain vocal adjustment on their part, and therefore a certain conception of the significance of the staff in its representation of pitch. As their voices change, the tones represented by the staff require quite new vocal adjustments, and finally they sing quite new tones (an octave lower than the tones really represented) in response to the old and familiar symbols. If the facts are not clearly explained to them and their voices are not interpreted in relation both to the old treble staff and the new bass staff on which their future experience must necessarily lie, they soon lose the power to sing from the staff and resort to singing ex-

perimentally "by air." The inevitable result of this is that they sing the "air," or soprano, an octave lower. But even the soprano sung in the lower octave will frequently ascend beyond their range and at such points they will either sing entirely out of tune or drop to a second octave below. Usually they fall between levels, for a few tones at least and frequently for long stretches, giving rise to muddy dissonance which embarrasses them and frequently brings upon them the suspicion and even the accusation that they are unmusical.

Since basses, especially undeveloped ones, can not sing satisfactorily on the light and flexible soprano parts written for seventh and eighth year trebles, music should be used which does not impose this impracticable effort upon them. Such music will be arranged for regular bass parts, to be sung in connection with two or three treble parts, or two treble parts and a tenor, or a so-called alto-tenor. Countless schools regularly use good music so arranged, and regularly obtain with it results of such excellence that they present to the public attractive concert programs by seventh and eighth grade choruses that sing three-part and four-part music.

Some of the evil results described that are likely to arise from neglect or mistreatment of changing voices are not present in the Wilmington schools to the degree that might be expected. Actual mismanagement of these voices, or any others by reason of the influence of these, is rare. But while tone production continues good, the ensemble in some classes was clouded by the uncertain efforts of these changing-voice singers to find the tones that would harmonize with the music the class was singing. The musical intelligence of the low-voiced singers and, to an extent, of all, must also suffer positively because of such juggling with the facts of the musical notation, and negatively because of failure to attain many broader and finer musical developments that are appropriate and possible. In particular, the natural broadening of both the general and musical intelligence of the pupils leads them to seek music that is written in parts. The training of the ear to appreciation of many values of musical structure and development of appreciation of music in general through concerted singing is possible only when such singing is developed to the point where the singers can hold independent parts in mixed-voice choruses. Yet at present unison singing constitutes almost the whole of the music practice in Wilmington throughout all the eight grades.

#### SIGHT SINGING AND NOTATION.

The first step toward sight singing is made in Wilmington by teaching the scale by rote, using syllable names, and then various successions of scale tones, before the printed notation is seen by the

learners. The result of this practice is to establish the necessary association of names with tones. It is equally evident, however, that attainment of this result will not carry with it commensurate ability to read from the staff, inasmuch as the third association, that of position, is omitted from the training at this time.

The second step in Wilmington is introduced only after the association of names with tones (in that order) has been firmly established by much thorough drill. It is intended to establish the association of *tones* with *names* (in such order). The teacher sings, to an indefinite or so-called neutral syllable, such as "loo," a series of tones in scale order (i. e., without skips), and the children respond by instantly singing the tones back to the teacher, applying the correct syllable names. This is known as oral dictation. The children do it very successfully. The only criticism that can be made upon the efficiency of the practice, leaving aside questions of its complete validity, is that, in all lessons observed, individual children, who volunteered by raising their hands, were almost invariably selected to make the response. The surveyor could therefore not feel sure that the great number who did not raise their hands were being adequately instructed. Individual response is certainly preferable to concerted work, but it should be systematized in such manner that every child is regularly called upon and his ability is so made known to the teacher, and the children who do not volunteer should probably be called upon more frequently than those who do. Nevertheless, the belief of the surveyor is that this instruction, like most of the musical instruction attempted, is extremely efficient. But again, it must be evident that this step, like the first step described, neglects the indispensable association of both tone and name with staff position.

With the third step practiced in Wilmington, however, we come upon a systematic effort to establish the third association upon which the sight-singer's technique must rest. It consists in the children writing upon a staff drawn upon the blackboard little scale successions first recognized and syllabized in the manner characteristic of the second step. The process is known as written dictation. Rhythm is properly entirely disregarded for the time, all the tones being represented by whole notes. The work is done by volunteers, all but a few children in a class thus having no opportunity, during one lesson, to do more than observe, criticise, and suggest corrections. All should instead be provided, at this stage, with music paper, specially ruled with a widely spaced staff, on which they might write simultaneously.

It might be thought that with the introduction of this last feature every factor necessary to a sound system of instruction in sight singing had been secured. But this association of position on the staff

with tone and name is too long deferred. This is an error. It leads to weakness in knowledge of staff notation as compared with tonal knowledge; and this weakness is, and will be, in exact proportion to the extent of such postponement or neglect.

The association of tone and name is rightly and beautifully developed by long drill, based upon imitation. But just to the extent that a child's ability to apply the right name to a tone heard is the result of having had this done for him, so will his ability to apply the right name to a note seen be the result of having had this done for him. By the process of instruction in Wilmington the child recognizes that certain tones hummed to him are *do, re, do, ti, do*, because he has heard them called so, times innumerable. When he sees these same tones represented upon the staff he does not know half so well that they are *do, re, do, ti, do*. His visual recognition lags far behind his aural recognition. Thoughtful and observant teachers have long since come to the conclusion that to use syllables thus in association with tones in advance of the presentation of these upon the staff is not only a waste of effort but is positively deterrent to establishing later the association of names and tones with staff positions.

Another error lies in the method of approach to staff notation when it is undertaken. Instead of leading the child to associate the correct names (and therefore tones) with staff positions by the same processes of direct affirmation and imitation that were employed in the first instance, he is asked to reckon the names rather than to learn to know them. Because the child at this stage knows the order of succession of the scale tones by syllable names, ascending and descending, it is thought that he should know *re* upon the staff by reflecting that, as it is in the next position above *do*, it *must* be *re*. It seems to be forgotten that he learned that the *sound* above *do* was *re* by hearing it called so, and that he should similarly learn that the *staff degree* above *do* is *re* by hearing it called so. If instead of *re* he is confronted with *mi* or *sol* (following directly after *do*), he enters upon quite an arduous calculation. Indeed, the only hope of success in singing from the staff in the first two or three grades in Wilmington lies in rigid adherence to tonal successions that make no skips.

There is still another systemic error of instruction. We have spoken of the imitative drill given on the scale and on various successions formed out of, and limited to, the successions found in the scale. These successions in conjunct motion are in a comparatively few set forms, which are repeated until they are memorized entire by the children, as tunes. Not only do they fix the scale-track in the pupil's mind, but they come to form so many brain-tracks there. As the child, when he tries to read from the staff, is not equally well

drilled on conventional forms in their visual representation, it often happens that a brain-track and a melodic outline upon the staff interfere with each other. A melody may begin with a few notes that accidentally follow one of these conventional tracks, and then diverge from it. Again and again the surveyor heard the children, under these circumstances, continue along the brain-track in placid disregard of the printed notation. The very exercises that were supposed to aid in giving them competence in sight singing proved their undoing.

By the system of instruction in Wilmington, children begin to write notes before they endeavor to read music at sight. In this is found another root of the difficulty.

As was said above, in describing the third step in instruction in Wilmington, the approach to the problem of staff notation, when it is introduced, is through written dictation. The scale, recognized and syllabized by the children, is written by the teacher upon a staff drawn at the time upon the blackboard for the purpose. The teacher then sings the scale, the pupils following the notation closely, and the pupils sing it in turn, imitatively, while the teacher points to the notes. Other successions of tones in scale formation soon follow, under a similar plan of presentation.

So far, the method of presentation is not pedagogically unsound so much as it is excessively restricted in application. In other words, the process begins with imitation of a direct, affirmative example, but the example is a restricted, conventional, musical form. But we must note next that the process is restricted by being sharply curtailed in point of continuation. After a small number of exercises have been done in this way the teacher ceases to write the examples upon the staff, and instead the children, after first recognizing by ear and syllabizing the tones, as before, go to the blackboard and write them. Their success from this point on no longer depends upon direct instruction and imitative drill, but upon reflection and deduction. They are supposed to write, *do, ti, la, sol, do*, for instance, by reckoning staff degrees in terms of the scale-track. The plan is unsound pedagogically in exactly the same way that the alphabet method of teaching reading was found to be unsound. It teaches the children (in so far as it does teach them) to spell notes instead of to read music. It is likewise inconsistent; for if names are to be linked with sounds by use of direct affirmative example, they should be linked with notes on the staff by the same process, and for exactly the same reasons.

The pupil in Wilmington identifies notes upon the staff by computation. These notes are in conjunct series and can be readily computed. Skips are supposed to be employed early in the first year in oral dictation, but are not introduced until later in written



dictation. This again reveals the underlying fallacious thought that the brain must *know* with relation to aural matters, but must *reckon* with respect to visual matters. The overwhelming preponderance of practice in Wilmington, however, for the first two or three years, and with respect to both oral and written dictation, is restricted to scale-track melodic bits. Practically the only skips employed during these years are those between tones of the tonic chord and those in one of the conventional patterns so insistently taught, which requires a return to *do* from each tone of the scale-tones in turn: e. g., *do, ti, do; do, ti, la, do; do, ti, la, sol, do; do, ti, la, sol, fa, do*, etc. This, of course, does not give practice in skips so much as it demands retention in memory of the sound of *do* with which each fragment begins. Meanwhile the great variety of skips found in real music, even of the simple grade appropriate to children of these years, such as skips of thirds everywhere in the scale, skips of fourths in most places in the scale, and skips of fifths, sixths, and octaves in their more familiar usages in simple music, are not presented or prepared for in any form.

But such skips as are formally studied are presented at the point of their introduction wrongly. *Do, mi, sol, do* (the tones of the tonic chord) are more closely related than are four successive scale tones. Experience teaches that they are much more readily sung in tune and recognized aurally by children than are scale tones—a natural result of acoustic law. Even upon the staff, falling, as the lower three *do*, upon three successive lines or three successive spaces, they are more readily recognized. But instruction in Wilmington rests upon practice in conjunct motion and the belief that notes on the staff are to be reckoned, not known. Skips are, therefore, introduced as scale passages from which some notes are missing. This method of presentation is such that the child sees skips rather than hears them. It is surely hardly necessary to point out the error of this method.

#### EAR-TRAINING AND ELEMENTARY THEORY.

From what has been said it is evident that ear training and theoretical knowledge of staff notation must be better developed in Wilmington than sight-singing ability. With reference to ear training, there is, indeed, but one criticism to be made. Its processes are entirely good (except for the important fact that only individual volunteers receive the full benefit of instruction in any one lesson), but its material is too abstract and formal. Ear training is not a separate branch of study, requiring separate and abstract material, but is a form of reaction of the mind to the musical experiences that it meets. These musical experiences should be such as we desire for the child because of their musical value, gauged to appropriateness

to the age and stage of musical development of the child. The songs we wish him to read and learn at any time therefore present the material to be grasped by ear as well as by sight, and just as instruction in sight singing, if conducted by means of exercises that contain only general features that might be in countless songs, may lead to helplessness in the face of any one particular song, so ear training, conducted by means of similar material, may yet permit negligence or inability in aural grasp of the real musical experiences that represent the true aim of instruction in music. This has happened in Wilmington. We have said that the ear and eye were largely trained along certain formal tracks, and that musical brain-tracks were the result. By experiment the surveyor found that a tonal series that adhered closely to the form of the conventionalized exercises in which they had been drilled could be readily syllabized by the pupils, just as it could be but a little less readily written by them on the staff; but departures from those conventional forms, such as might be represented in any real song suitable for their study at the time, were likely to result in unsuccessful efforts. However, the results in ear training are far from bad. In fact, it may be said that many school systems more advanced in music generally might well emulate the results in ear training found in Wilmington.

The outcome of the painstaking theoretical instruction given is not so favorable as that of the ear training. Pupils are very generally able to give a satisfactory statement of facts about features of staff notation (with which elementary theory is almost wholly concerned), but are very generally incapable of making practical use of their knowledge. Very many times the surveyor heard children state that a certain symbol was a half note and should receive two beats, and then sing and give it one beat. A painstaking quiz, indeed, preceded most attempts at sight singing. The questions included the key, the measure, the kinds of notes and rests and their length, chromatic signs, etc. Often the questions were purely perfunctory, it being certain that the children knew all they were asked to state. The time spent on such questions and answers might usually have been spent much more profitably in practice at sight singing.

The result, then, of all these methods, is that the children read music as an intellectual exercise and with very little real power. What power there is functions only upon artificial exercises rigidly restricted to the usages previously drilled upon in the sequential exercises. In the presence of real music the children were found to be almost helpless, so far as sight singing is concerned.

Pedagogically considered, the entire system represents the old endeavor to work from the abstract to the concrete, from the general to the specific. A thousand formal preparatory practices are taken

up with the thought that they will prepare the child for the happy day when he will be confronted with a real song, which he will then be able to read. When the day comes it is found, as usual, that he can merely do the thing he has been doing—which is to repeat his exercises and theoretical statements.

#### NATURE AND GRADING OF TEXTBOOK MATERIAL.

The music textbooks used in Wilmington contain many beautiful songs wisely adapted to the voices and musical and literary needs of the pupils for whom they are designed. They contain, also, very much material designed for technical instruction, and this material is very carefully outlined, and methods of presenting it are prescribed in teachers' manuals that accompany the textbooks. Blank music-writing books are also supposed to be in the hands of all pupils as an indispensable feature of the instruction.

The material is excellent in its gradation, but not irreproachable in its methods. The amount of formal technical material included seems disproportionately great. Nevertheless, the books could be used in such manner as to produce excellent results, if the prescriptions as to methods of presenting their material were somewhat altered.

But while the textbooks, with the reservations noted, are well designed, they are not assigned in Wilmington to the grades for which they were intended. Instead, the material is undergraded. This undergrading, which applies over the entire elementary and grammar school system of the city, reaches an extent of one year to two years. The books of music used are ordinarily placed one year under grade; but the technical study and drill outlined in the teachers' manuals is carried, by the end of the fifth year, only through the work specified in the teachers' manual for second year. The books for fourth, fifth, and sixth years are used in the sixth, seven, and eighth years, but without rigid classification; and the technical study apart from these books is that outlined in a manual which treats of such work in grades 4 to 7, inclusive, with supplementary material for pupils beyond grade 7. It is evident that no very definite course is imposed upon these upper grades.

The first and second years are not undergraded in respect either to sight singing and song material or outlines of technical study. The undergrading has a tendency to become cumulative in the years beyond.

Without asking, for the moment, the cause of this undergrading, we will note some of its effects. Part singing is much delayed by it. Instead of introducing it in the fourth school year and adopting it as a standard practice in the fifth year and beyond, it is not only

delayed for one year or more, in harmony with the general under-graduating, but it is held back far in excess of that point. Indeed, there is practically no part singing at all in Wilmington. Only in two or three classes in elementary white schools was any part singing attempted during the field survey. In one of these cases the results were admirable; in another they were fair. Yet part singing is absolutely essential to the development of a rich musical understanding.

Since musical practice in Wilmington, as derived from exercises, has not been progressive, it might be well now to begin with musical practice and derive the exercises from it in such kind and degree as may be indicated by the performance of the children. In the grammar schools, where the technical requirements are left very indefinite in the outlines provided, this latter method has at times been adopted. The results, as observed, were decidedly satisfactory with respect to the broad musical development of the pupils and the power that music seemed to be exercising in their lives, and their technical knowledge and skill did not appear to have suffered in the slightest degree.

#### COLORED ELEMENTARY SCHOOLS.

Since the colored elementary schools pursue the same course of study as the white, the greater part of the analysis made in the foregoing pages applies equally to both groups of schools. Some minor differences exist, however, and will not be devoid of interest. They arise chiefly, but not entirely, from differences in racial temperament.

The Negro has quite as acute an ear for pitch and rhythm as has the white. It is probable that his native aural capability is even superior to that of the white; but his greater freedom from self-restraint and self-consciousness, especially in singing, may account for this seeming superiority. Moreover, he develops physically more rapidly than does the white, and in early years, age for age, may readily surpass the white in all that rests solely upon physical development. Certainly the voice of the Negro develops more rapidly than does that of the white.

In relation to music these characteristics usually cause the colored child in primary grades to sing more freely and often with a better quality of tone and better voice control than the white child of the same age displays. In Wilmington the number of monotones segregated in primary rooms in colored schools was much smaller than the number in corresponding rooms in white schools. In other respects, however, there was much less difference than observations made by the surveyor in other cities would have led him to expect. The vocal quality was not better, nor was the singing freer. Indeed, the singing in some of the primary rooms in colored schools was

somewhat repressed—a surprising characteristic for such groups. This repression may have been due to extraordinary effort to avoid the too exuberant and hearty singing which is usually more likely to be heard from such children; but it was certainly excessive, and spoiled some of the joy in song which the children might have had.

The undergrading characteristic of the white schools is maintained also in the colored schools. We have discussed the results of this undergrading in white schools as related to part singing. The results are even more serious in colored schools because of two racial characteristics. The first of these is that the Negro has a quite extraordinary harmonic sense, and can either improvise or learn to carry independent parts far more easily than can the white. It is quite common in mixed schools to hear alto parts improvised by children in primary rooms, and such children are invariably colored. Such capability imposes upon every teacher the responsibility of developing it and developing the pupil by means of it. The undergrading in Wilmington therefore represents greater restraint among colored children than among white, so far as this particular form of development is concerned. Secondly, the voices of colored boys change earlier than those of white, and colored boys are, moreover, likely to be above age for grades in which they are placed. Bass voices are therefore found in low grades and are abundant in higher grades. If part songs which use bass clef are not provided, the difficulties described in connection with white schools are certain to be met with in more acute form. In one eighth-grade room in a colored school a song for two treble parts was sung. The class included a large number of basses, most of whom could do nothing better than attempt the soprano part an octave lower, with occasional lapses in pitch when the soprano ascended beyond their range. A song for two treble parts and bass would have yielded better musical results and better educational results.

Undergrading is not equally unfortunate in its results in colored schools with respect to technical instruction and sight singing. The Negro loves to sing and has excellent musical endowments, but his tendency to study music scientifically is not proportionately great. It is true that the abstract technical study described in the foregoing pages seems more hopelessly remote from the needs and interests of colored children than from white; but on the other hand, the retardation of it due to undergrading is therefore correspondingly fortunate. The colored pupils in a majority of the rooms were unexpectedly found to be doing the technical work and sight singing surprisingly well. The best sight singing heard in any room in Wilmington, as well as the most advanced work on sequential forms, and in written dictation involving complex rhythms (metric dic-

tation) came from a colored school. On the other hand there is no greater uniformity in attainment in colored schools than in white schools (and in these latter, attainment varies greatly), and a number of colored classes displayed but small knowledge and ability. On the whole, however, music in the colored schools is equal to that in the white schools with respect to the quality of singing, knowledge of theory, power in sight singing, and interest on the part of the pupils. It may be, indeed, slightly superior. If so, that is due to a condition that must be discussed under the organization of the department of music.

#### WILMINGTON HIGH SCHOOL (WHITE).

Almost no instruction is given in music in Wilmington High School. In assembly programs once each week the Lord's Prayer is chanted and a hymn is sung. The singing of the latter sometimes develops into a brief chorus practice upon it. An orchestra, trained and directed by a local musician not otherwise attached to the school system, plays for assembly exercises.

One assembly program of this type was attended by the surveyor. The singing was much more spirited and general than might have been expected under such conditions, but the pupils were not divided according to voices, and the singing was congregational in type. The excellent training in use of the voice given pupils in the grades below the high school was manifest in the interest displayed and the good vocal quality that was heard.

The orchestra which played numbered 19 members. The instrumentation was as follows:

6 first violins.	2 second cornets.
5 second violins.	1 trombone.
1 bass.	1 drum and traps.
2 first cornets.	1 piano.

The members of the orchestra individually had very fair technical ability, but their concerted playing was not what it should and could have been. The compositions used were flimsy, and they were played in both a blatant and perfunctory manner. If any effort had been made to teach the players to love the finest beauties and purest effects possible to their respective instruments, it was not in evidence on this occasion. Orchestral playing, like all school music, should be used to advance the student into closer sympathy for musical beauty. The spirit of respect and reverence for an ideal of pure tone and refined style should be inculcated. The music, however simple it may be technically, must have pure quality in order to elicit this sort of response from the players. If such spirit does not permeate all musical effort, its value as an art, which is the value

that justifies its place in the world, is lost. The most modest effort in this spirit is valuable; the most elaborate effort, lacking it, is comparatively poor.

#### HOWARD HIGH SCHOOL (COLORED).

Conditions in music are better in this high school than in Wilmington High School, due chiefly to greater effort being made and to the fact that small enrollment gives opportunity for a high degree of concentration of this effort.

Assembly exercises, 20 minutes in length, for high school and 8A pupils, are held every morning. The entire period was devoted to music alone until just at the time of the survey, when Scripture reading was added by wish of the board of education. The music consists of chants and hymns, Negro spirituals, chorus practice, and orchestral playing. It is under the personal direction of an assistant to the supervisor of music, whose field is exclusively the colored schools.

The students were grouped according to their voices on the occasion of the surveyor's visit. They chanted the Lord's Prayer and a psalm. The voice quality and expression were very good. The soprano, alto, and bass parts were excellently carried; the tenor only was weak and uncertain. Upon inquiry it was learned that the harmonic parts were extemporized by the singers, yet they were carried as firmly as though they had been read and carefully rehearsed. This is but additional evidence of the remarkable harmonic sense of the Negro, mentioned in connection with our observations on music in the colored elementary schools. Additional discussion of the same topic may be found in the Memphis survey report (Bul. 1919, No. 50, pt. 5, Music), previously referred to.

In addition to the singing just mentioned, the students sang a Negro spiritual. Too much can not be said in favor of this practice. Only increased richness and strength can result from developing in each race all its deep, native qualities that are good; and its own art and literature, sincerely developed, are powerful agencies toward such happy realization. The sympathetic attention being given by all Americans to-day to our Negro music; and the dawning consciousness of the Negro that he has here something all his own which is of high worth and deserving of high development, are fortunate auguries.

In this assembly exercise some choruses were also sung. These were from a late and extremely good high-school chorus book of advanced musical and technical grade. Although the supply of these books was only one to about every four singers, the results were again very good. If all singers were provided with books and given the

time for practice now accorded some notably good chorus work would result.

The orchestra consists of two first violins, one second violin (the music instructor), one cornet, one drum, piano. It played a good piece of music with good tone and in a musical way. It is proceeding along entirely right lines and is a most promising feature of the commendable work in the school.

The training school for colored teachers that is housed in this building will be mentioned in the next section of this report.

**PAST AND PRESENT ORGANIZATION OF DEPARTMENTAL WORK IN MUSIC IN WILMINGTON, AS BEARING ON THE CONDITIONS DESCRIBED.**

Music has been taught in the Wilmington elementary schools under the direction of a supervisor of music for at least 25 years. Although progress has been made, the days of Wilmington's musical majority, so to speak, have not been many. The reason lies in traditional standards in the State of Delaware at large. With respect to music, there have been practically no standards at all in the schools of the State. Teachers in the State and in Wilmington specifically have been untrained in music, and often most meagerly trained in general and professional subjects. The supervisors of music, when they have been in advance of the general school-music standards, have consequently had to work against a dead-weight of traditional indifference and ignorance as to what school music should be. At times and in specific cases this indifference has developed almost into positive opposition. Music has not, therefore, had merely to grow, it has been under the necessity at the same time of creating an environment which would not stifle it.

The present supervisor of music in Wilmington was appointed less than one year ago. In the six years preceding the foundations of the present modern system of musical instruction were laid. Before that the ground was but being prepared slowly and unconsciously for the builders.

Besides the supervisor of music for the entire system there is an assistant who attends directly to the musical instruction in colored schools exclusively. In each of the four grammar schools there is also a special teacher of music. In one of these schools the music teacher also gives all the instruction in penmanship; in another the music teacher gives part of the instruction in art. In the remaining two schools the music teachers give instruction in music only. There is also a special teacher who gives instruction in music and physical education in one elementary school in which all instruction in the fifth and sixth grades is departmentalized. With the addition of the orchestra director in Wilmington High School, the list of special



teachers of music is completed. All instruction in music not given directly by this corps must be given by regular grade teachers.

The supervisor of music plans and outlines the work for all schools in the city, visits all schools, and gives or observes the instruction given to each class, holds meetings of grade teachers for the purpose of instructing them in teaching music, and conducts the singing in assembly exercises in Wilmington High School. Lower elementary schools are visited more frequently than the upper elementary or grammar schools, because the special departmental teachers in these latter are better prepared to carry on the work. Also, elementary schools are visited unequally, according to the needs for special help that may develop. However, most schools are visited once in each month or five weeks. Unless the regular grade teachers are extremely competent in carrying on the music during the interim this period is too long. The practice of the supervisor is to teach the classes visited, giving model lessons, rather than to observe the work of the class teacher. The practice is sound and is preferred by the majority of supervisors.

Grade meetings for teachers of each grade, from first to sixth, inclusive, are held by the supervisor at the beginning of each semester. A meeting with the special teachers of music in grammar schools, as mentioned above, is also held at the same time. An excellent feature of the supervision is a teachers' class, held in addition to the grade meetings. This is for new teachers and all needing help in the special methods of the course outlined. Teachers from all elementary grades are combined in the group, and meetings are held weekly. While the call to these meetings has not been mandatory, most teachers whose attendance was requested have come willingly and even gladly. The kindly, cooperative spirit in evidence in the schools generally is manifest in this response.

The assistant who conducts the instruction in colored schools attends the grade meetings of the supervisor and visits each elementary grade class in colored schools once in three weeks. The closer supervision thus given colored schools (impossible for one supervisor in white schools) is one factor conducive to superior work in these schools. In addition, the assistant teaches and directs all the music in Howard High School, and in the teacher's training classes conducted in that school, and instructs at least one sixth-grade class and one seventh-grade class housed in the same building 40 minutes and 80 minutes a week, respectively.

Except for the special teachers in grammar schools and School No. 9 (an elementary school departmentalized) grade teachers give all remaining regular musical instruction. This does not mean, however, that each and every teacher gives instruction to her own

class. There is considerable departmentalization of instruction in the elementary schools. Wherever there are teachers who are weak in music and an exchange of subjects can be effected between them and a teacher of ability such exchange is effected. In the opinion of the writer variations in results are not in equal ratio to the variations in ability between teachers, e. g., a teacher who is 25 per cent better than the regular classroom teacher will get results that are hardly any better, some power being lost to the pupils through their changing from one personality to another. The wisdom of dividing work among the regular teachers in a school, unless some of these have comparatively very great special abilities, is therefore open to grave doubt. In Wilmington some teachers are totally unprepared to teach music, and variations in ability within any school are accordingly likely to be sufficiently marked to justify departmentalization.

But the question as to what training in music these teachers receive before entering the schools naturally arises. The truth is that they need not have received any. The State does not require music to be part of a teacher's equipment, and has taken practically no steps to encourage the study among prospective teachers. In this it is behind a large number of other States which not only require that music be taught in all their schools but prescribe a minimum number of hours which students in their normal schools shall devote to its study. For instance, the requirements in the State of Pennsylvania are as follows:

**ART. 4.—MUSIC.**

All groups, fourth semester, 4 periods, 2 hours' credit.

This course presupposes a knowledge of the elements of music. The purpose of this course is to fit students to teach music in the public schools. The salient features of this course are: A treatment of the child voice, a study of the tonal and rhythmic problems of each grade, ear training, melody writing, sight reading, and part singing, a study of the song material adapted to each grade, the use of the phonograph to develop musical appreciation, and the development of musical programs. Students are taught how to apply the standard musical tests to discover musical talent. Observation and practice teaching are a requirement of the course.

Wilmington should similarly safeguard the musical instruction of its children by requiring a knowledge of music on the part of teachers entering its schools.

Mention has been made of a department for training colored teachers, maintained in connection with Howard High School. Until recently the city school system maintained also a training school for its white teachers, but this has been discontinued. At present the members of the normal classes for colored students are pursuing an excellent two-years' course of study given by the instructor in music

in colored schools, and this plan has been maintained for years past. The ranks of the colored grade teachers in Wilmington are largely recruited from these classes. The result is that the percentage of colored teachers teaching their own music is greater than that found in the white schools, and much of this teaching is very efficient. This is the other factor that makes for any superiority in music that may be found in the colored schools.

The time allotted to music is, in general, 15 minutes per day for lower grades, 20 minutes per day for upper grades. This is not lavish, but is in accord with the practice in countless other cities. But in many rooms in Wilmington there is great deviation from this standard allotment. In many lower grades half-day sessions result in contraction of the entire program; and music is always an early sufferer in case of such contraction. In fourth, fifth, and sixth grades classes of mixed grade, such as 5B, 5A, and 6B (to take an exceptional instance), result in crowded schedules and consequent contraction of time for a subject like music, that requires the participation of all at once. The conditions in this last respect seemed very uneven in different schools, and it is possible that some redistributing of the city, such as may possibly grow out of the school survey, would alleviate the difficulty. The time assigned is so moderate that it should certainly not be decreased further. In grammar schools each group receives ordinarily two 40-minute lessons in music per week. This is not sufficient for the attainment of good results. It is made smaller than it would normally be by the pressure of the departmental 40-minute schedule. Between two periods, which is under the normal amount, and three periods, which is over the normal amount, the lesser is chosen. The mechanism of a schedule, however, should not be permitted to dictate the educational program. If a proper time for music in sixth, seventh, and eighth grades is 100 minutes per week, a schedule should be devised that will give them that amount. Pupils at this age need also, as was stated in an earlier section of this report, two types of instruction. They should be assembled in small groups, in which the individual voices can be heard, classified, and trained, and in which each individual can be taught to carry an independent vocal part, read at sight, review and strengthen his knowledge of musical theory, etc., and they should be assembled in larger groups in which their interest in mass chorus practice may receive recognition and their capability in mass chorus singing may be developed. These needs have often been met by a plan substantially as follows:

- (a) One 40-minute period per week in small groups of 35 to 45 pupils each.
- (b) One 40-minute period per week in groups consisting of 55 to 90 pupils each. (Each of these groups represents a combination of one and one-half or two groups of the kind specified in (a) above.)

- (c) One 25 to 40 minute period per week in partial or general assembly (as all the sixth year pupils, or seventh year, or eighth year, or some two or all three of these combined); the pupils to be seated according to voice parts, and the period to be devoted largely to ensemble singing of songs previously studied in the smaller group rehearsals).

If this program is skillfully worked out, it will leave the assembly programs as enjoyable as before, will take no more time from regular subjects than music and assembly programs as now scheduled take, and will result in vast improvement in the work in music, as compared with the present plan.

#### SUPPLIES AND EQUIPMENT.

The course of study in all the grades calls for the use of but one book of music during any one period. No supplementary books of music are supplied, prescribed, or recommended. Blank music writing books in the hands of all the children are prescribed by the author of the system, and these are, indeed, not only desirable but indispensable to a proper presentation of the course. None of these blank books has ever been introduced in Wilmington.

It is unfortunate that no supplementary books of music are at hand; for while it is quite right to use one set of books as a basic text, supplementary music is essential to a rich or even adequate course of instruction. In seventh and eighth grades in particular, at least two complete sets of material are necessary. Many seventh grades contain a number of bass voices. All standard books nevertheless present only treble-voice music for these grades. Similarly, eighth grades often contain no bass voices; but all standard books present bass-clef music only for eighth grades. In such cases a double amount of music for both treble voices and mixed voices, but of the scope and quality appropriate to the pupils, should be supplied. We do not forget that at present the grammar schools in Wilmington are paying little or no attention to these vocal requirements, but they should do so, and the problem should be met by an adequate supply of music. The situation in colored schools demands even more careful consideration of the kind; for here bass voices are likely to appear in considerable numbers very early, and neglect of their requirements means the ruin of musical effects and musical education, even if it does not result in permanent impairment of voices.

The lack of the prescribed music writing books is equally unfortunate, perhaps more unfortunate. The author of the system truly says that written work is one of the best means of securing individual recitations in music. We have mentioned repeatedly the need for forms of recitation that would enlist all pupils at once in their individual capacities. The blank books, or, in default of those, blank music paper would be invaluable.

But infinitely more disastrous is the meager supply of the books that are provided. During the entire field survey there was a most distressing loss of time and accomplishment due to the fact that no music books whatever were in rooms entered for purpose of observation. One set of some 40 books would be used in several rooms successively, and would need to be gathered up and carried from room to room by pupils. Collections and distributions of books often consumed as much time as the surveyor could give to the recitation after the pupils were provided with books. It is small wonder that many rooms experience difficulty in securing the prescribed time for music.

Pitch pipes are adequately provided. Every teacher is supposed to be supplied with a pitch pipe, and hardly any shortage was noticed. It should be said, too, that most of the teachers used them freely and correctly. Staff liners, teachers' manuals, a rote-song book for each teacher, and, in short, all equipments for teachers, were well supplied.

Almost every school is provided with at least one piano. The pianos are placed in classrooms, auditoriums, or halls, as the conditions may indicate. Those in grammar schools were used to the best advantage. The pianos in classrooms were not used half so liberally as they should have been, so far as the surveyor's visits revealed. A piano in a classroom is advantageous if used as nothing more than a superior pitch pipe. Used for accompaniments it enlarges greatly the musical horizon of the pupils and adds infinitely to their musical enjoyment; and it also provides an unrivaled means for ear training, explanation of scale composition, elucidation of rhythmic problems (as where two or more contrasted rhythms proceed at once, or where long notes are broken into shorter ones), support of one part against another, and so on. The full measure of its values did not seem, however, to be understood. It was nevertheless delightful to find pianos in such numbers. The day will surely come when a keyboard instrument (piano or one of the modern small portable school organs) will be regarded as an essential factor in every music lesson for every class.

The distribution of pianos is uneven. Some schools are richly supplied, some are destitute. The cause of this is that every piano in the school system (if information obtained is entirely correct) has been purchased out of funds not supplied by the board of education, but obtained by school entertainments and other forms of benefit performance. While the spirit and the disinterested efforts of those who worked arduously to obtain these instruments are deserving of the highest praise, there is much that is objectionable in this form of procedure. Pianos and other keyboard instruments should be regarded as necessary equipment for all schools and should be pro-

vided at public expense and equally for all the children of a city. The surveyor knows of at least two cities in which attempts to raise private funds for such a purpose were promptly suppressed by the school authorities, as representing violations of a cherished principle.

One or more phonographs are installed in most schools. They have been obtained by means similar to those used to obtain pianos. They add much to the enrichment of the schools, not only in connection with the music but in connection with physical training, marching, etc. As these instruments, notwithstanding their value, are ordinarily considered as less essential to fundamental musical training than are pianos, and as their cost is less and sufficient funds for their purchase can usually be secured by any school, it is customary for boards of education to permit them to be purchased from funds obtained by special means.

Table No. 1, which follows, shows at a glance the provision of books, pianos, and phonographs. The books ordered between June and October 15, 1920, had not all been received when the field survey was made. Their receipt would have alleviated the situation, but obviously would not have gone far toward correcting it. No further comments on the table are necessary.

TABLE 1.—*Report of music supplies, October, 1920.*

Schools.	Net enrollment, 1919-20.	Books on hand.	Books ordered June to Oct. 15.	Pianos on hand.	Ma- chines on hand.
No. 1.....	633	251	0	2	0
2.....	508	167	60	2	3
3.....	455	188	0	1	2
4.....	653	330	108	1	1
5.....	237	96	0	1	1
6.....	293	123	0	1	2
7.....	275	134	0	1	2
8.....	334	127	0	2	3
9.....	589	402	0	1	0
10.....	277	93	0	1	1
11.....	526	193	96	1	1
12.....	398	113	96	1	1
13.....	344	188	12	1	3
14.....	351	156	23	2	1
15.....	413	149	36	2	1
16.....	467	158	108	2	1
17.....	285	129	36	1	0
18.....	133	48	0	0	1
19.....	382	211	60	2	1
20.....	370	102	36	1	1
21.....	235	125	42	3	1
22.....	129	30	36	3	1
23.....	348	188	96	1	1
24.....	725	196	94	0	1
25.....	676	234	144	0	1
26.....	164	147	0	0	0
27.....	147	92	12	1	0
28.....	764	353	0	1	0
29.....	571	140	12	1	1
30.....	531	293	48	2	2
Total.....	12,233	5,156	1,145	139	35

<sup>1</sup> Also 4 pianos in high school, making 43 in all.

## AIMS AND FEATURES OF PRACTICE THAT ARE LACKING IN WILMINGTON.

A most important aim for public-school music is to make it articulate with the musical activities and interests of the adult community and those of the adult musical world generally. While this aim is probably recognized in Wilmington as sound in principle, the most serious defect in the course is that the forms and spirit of instruction are such as will lead, by imperceptible divergences, away from its realization.

Any teacher who is a musician (and those who are responsible for the music in Wilmington are good musicians) will have a thousand associations called up by some rhythm that suggests the music characteristic of a certain race, or that characterizes some great composition. It is not right that this rich culture of the teacher should never be brought forth to lift and quicken the minds of the children. Yet the surveyor heard no single word in any lesson in Wilmington that hinted that there was any music in the world except that which was in the schoolroom. Instruction seemed totally absorbed in that.

The whole field of instrumental music, which is so strong and so salutary an interest with so many children, threw scarcely one vibration across the thresholds of the schoolhouses in Wilmington to betray its presence.

There is no musical-study club in Wilmington; but the fact that a series of concerts is given, usually by the Philadelphia Symphony Orchestra, suggests one more way in which the schools may be linked with the community.

It might be difficult to inaugurate immediately advanced musical courses in Wilmington High School, or to begin giving instruction in instrumental music under school auspices or at school expense. Some measure of study of musical instruments already exists, however, among pupils themselves outside of school. Sympathetic recognition of it and encouragement of it are at least possible to the school system. The lack of any echo of such study in the school-rooms led the surveyor to conclude that there must be in Wilmington comparatively little of such study. An investigation was, however, made; and the results of the investigation, set forth and discussed in the next section of this report, will show whether his conclusion was accurate or not.

## PRIVATE STUDY OF MUSIC AMONG PUBLIC-SCHOOL STUDENTS.

Two distinct inquiries are represented by the following tables. The first inquiry sought to ascertain the number of pupils engaging in private study, the cost of such study, and the distribution of it

with respect to the instrument or branch of music studied. The tables also present the geographical and perhaps the social aspects of the distribution in Wilmington, and the distribution with reference to the ages of the pupils. The second inquiry sought to ascertain the extent of the vocational, as distinguished from the purely cultural aim of the study undertaken, with similar related facts regarding the distribution of the study.

Neither inquiry was addressed to pupils below the fourth grade. There is considerable study of music in the aggregate below this grade, but a true conception of the amount of study can probably be arrived at more certainly by omitting those pupils, who constitute a small percentage. The inquiry as to the amount of vocational interest was addressed, it will be noted, only to pupils of seventh to twelfth grades, inclusive.

For convenience in tabulation, the terms "elementary" and "high" have been used in their ordinary significance. So used, the term "elementary" includes the grammar-school grades (sixth, seventh, and eighth grades) in Wilmington.

TABLE 2.—Extent and cost of private instruction in elementary schools—White.

Schools.	Pupils answering.	Taking lessons.	Reporting instruction "free."	Reporting cost not known.	Reporting cost.	Annual cost reported.
No. 1.....	502	112	2	0	110	\$3,713.87
2.....	238	61	6	5	50	2,036.00
3.....	151	11	3	0	8	270.00
4.....	556	129	4	2	123	4,141.00
5.....	89	9	1	0	8	274.00
6.....	85	14	0	0	14	730.00
7.....	124	11	1	1	9	340.00
8.....	114	13	0	1	12	294.00
9.....	285	59	4	10	45	1,716.00
10.....	82	8	0	0	8	184.00
11.....	233	22	1	5	16	462.00
12.....	158	36	7	0	29	922.00
13.....	157	45	2	3	40	1,270.00
14.....	146	19	2	0	17	380.00
15.....	165	38	2	0	36	934.00
17.....	64	9	2	0	7	214.00
19.....	197	22	1	0	21	670.00
20.....	133	14	1	0	13	406.67
23.....	142	38	1	0	37	1,176.00
24.....	632	172	2	25	145	5,020.00
25.....	271	38	5	3	30	954.00
26.....	107	12	0	1	11	314.00
27.....	71	10	0	0	10	284.00
28.....	663	197	7	0	190	6,064.40
30.....	257	106	2	7	97	3,744.00
Total.....	5,613	1,205	56	61	1,086	36,316.94

The percentage of the whole number taking lessons is 21.47 per cent. The average cost per lesson is 83.6 cents plus.

The percentage of pupils studying is high. How high it may be with relation to other cities can not be stated, for very few inquiries of the kind have been made. Only two are known to the surveyor, and these were made in Memphis, Tenn., and in Rochester, N. Y. The



percentage taking lessons in the same grades in Rochester, which is extraordinarily advanced in extent and quality of musical study, was 24.47 per cent. The average price per lesson in Rochester was 97.55 cents. The corresponding percentage and average cost per lesson in Memphis can not be stated for comparison, as the basis adopted for tabulation there was not quite the same. The reader will, nevertheless, find other comparisons with the Memphis report to be possible and of considerable value.

The next table gives facts of even greater significance regarding the musical interests of these pupils.

TABLE 3.—*Distribution of foregoing study among special branches in elementary schools—White.*

Schools by number.	Banjo.	Clarinet.	Cornet.	Drums.	Guitar.	Mandolin.	Melophone.	Organ.	Piano.	Saxophone.	Trombone.	Ukulele.	Violin.	Voice.	Not specified.	Total.
No. 1			1	1					93				17			112
2			2			1			51			1	6			61
3									9				2			11
4		1				3	1		95		1		26		2	129
5									9							9
6									8				6			14
7									8				3			11
8									9				4			13
9									48				11			59
10									7				1			8
11									19				2	1		22
12		1							29				5	1		36
13									37				7			45
14									18				1	1		19
15									36				2			38
16									7				2			9
17									17				5			22
18									9				5			14
19									35				3			38
20									128				9	32		172
21			1		1			1	31				5			38
22					1	1			10				1	1		12
23									10							10
24			1			3		1	154		1		37			197
25			1						93	1			10	1		106
Total	1	1	6	1	2	8	1	2	970	1	2	1	170	37	2	1,205

The story told by this table is not so favorable to Wilmington. The study is sharply narrowed, betraying limitations of musical activity in the schools and community, and consequent limitations in the interests of young people. The cello is not studied widely by elementary school pupils anywhere because of its size, but half-size cellos are readily procurable, and some study of this noble instrument surely might be expected in a city of the size of Wilmington. The almost total ignoring of clarinet is another striking feature; and even the cornet and the less-favored trombone are disregarded to an unusual extent. A systematic effort to establish and build up grade-school orchestras would in a term of years unquestionably change this condition greatly for the better. On the other hand, the attention given to organ (unless reed organ is meant) is very unusual and

highly gratifying, and it is pleasant to observe that little effort or money is being wasted on the banjo and ukulele. However, the mandolin, which has no literature and no artistic scope comparable to that of some of the instruments omitted, comes in for an undue share of attention. The great attention given deservedly to piano and violin is in accord with usage over the entire European and American continents.

TABLE 4.—*Extent and cost of private instruction in elementary schools—Colored.*

Schools by number.	Pupils answering.	Taking lessons.	Reporting instruction free.	Reporting cost not known.	Specifying cost.	Annual cost reported.
No. 13.....	311	68	4	1	63	\$1,358
18.....	22	1	0	0	1	30
21.....	92	9	0	0	9	210
22.....	20	0	0	0	0	0
29.....	188	19	2	0	17	330
Total.....	633	97	6	1	90	1,928

The percentage of pupils taking lessons is 15.32 per cent plus.

The average cost per lesson is 53.55 cents plus.

In this table the much lower percentage of pupils taking lessons is notable, and also the much lower average price paid per lesson.

TABLE 5.—*Distribution of foregoing study among special branches in elementary schools—Colored.*

Schools by number.	Cornet.	Mandolin.	Piano.	Violin.	Total.
No. 13.....	3	1	60	4	68
18.....			1		1
21.....			9		9
22.....					0
29.....			18	1	19
Total.....	3	1	88	5	97

The limitations in variety of interest are much the same in this table as they were in Table 3. It will be observed, however, that the banjo and ukelele are not being studied at all.

In the next table both amount and distribution of study are included.

TABLE 6.—*Private instruction among students in Wilmington High School—White.*

Number answering .....	1,264	Reporting cost not known.....	24
Pupils taking lessons .....	302	Specifying cost.....	\$272
Percentage taking lessons.....	23.89+	Annual cost so reported.....	\$12.96
Reporting instruction free ...	6	Average cost per lesson.....	\$1.11+

The distribution of the foregoing study is as follows:

Cornet -----	7	Organ -----	3	Violin -----	54
Drums -----	3	Piano -----	211	Violoncello -----	1
Flute -----	1	Saxophone -----	1	Voice -----	6
Guitar -----	1	Trombone -----	1	Not specified -----	2
Mandolin -----	10	Trumpet -----	1		

This table is extremely encouraging. The price per lesson implies serious, well-determined study. Although the pressure of academic school work, which often blights the study of music for the remainder of the student's life, is growing heavier, the percentage of pupils studying music is greater than in the grades. There is a slight growth, too, in the breadth of musical interest, as evident in the advent of flute and 'cello into the tables. If outside instrumental study were given school credit, and if the high school purchased and encouraged the study of all instruments necessary to orchestral completeness and richness, one can not but believe that Wilmington High School would very soon attain enviable place among schools that are achieving distinction because of their musical accomplishments.

The next table is one of similar content, but is in connection with colored pupils of the same age.

TABLE 7.—*Private instruction among students in Howard High School—Colored.*

Number reporting -----	104	Reporting cost not known -----	0
Taking lessons -----	29	Specifying cost -----	29
Percentage taking lessons (per cent) -----	27.83+	Annual cost so reported -----	\$780
Reporting instruction free -----	0	Average cost per lesson (cents) -----	67.24+

The distribution of the foregoing study is as follows: Piano, 22; violin, 6; voice, 1.

The most significant fact in this table is the high percentage of pupils taking lessons. Coupled with the low cost per lesson, it reveals a story of strong impulse fighting against ill conditions. The variety of interest is reduced to a minimum. The implication of limited outlook and opportunity is here.

The final table, with respect to this phase of our inquiry, is of aggregates.

TABLE 8.—*Extent and cost of private instruction in all elementary and high schools combined.*

Total pupils answering -----	7,614
Taking private instruction -----	1,633
Percentage taking private instruction (per cent) -----	21.44+
Specifying cost of instruction -----	1,477
Reporting instruction "free" -----	68
Not specifying amount of cost -----	88
Average price per lesson, for those specifying cost (cents, nearly) --	86.53

Annual outlay so reported.....	\$51, 121. 21
Annual outlay of those (88) not specifying amount of cost, calculated at average price (\$6.53 cents) per lesson.....	\$3, 045. 81
Total amount of outlay for instruction.....	\$54, 167. 02

The distribution of study among the 1,633 music students in all schools combined, with reference to the special branches pursued, is as follows:

Banjo.....	1	Mandolin.....	19	Trumpet.....	1
Clarinet.....	1	Melophone.....	1	Ukelele.....	1
Cornet.....	16	Organ.....	5	Violin.....	235
Drums.....	4	Piano.....	1, 291	Violoncello.....	1
Flute.....	1	Saxophone.....	2	Voice.....	44
Guitar.....	3	Trombone.....	3	Not specified.....	4

There are several new features in this table. The annual outlay, now first computed, is reckoned on the basis of 40 lessons per year for each pupil. There are doubtless some who do not take so many; but on the other hand, there are many who continue lessons during the summer, and such lessons probably balance those lost. The cost for those pupils who reported taking private lessons, but did not know or failed to state the cost, is also calculated and added to the total.

The table reveals that more than 1 pupil in every 5 in all the Wilmington public schools, from fourth grade (inclusive) up, is taking private music lessons. He is doing this with practically no encouragement or support from the school system. The parents of these pupils are spending over \$54,000 annually to give them such instruction. This equals a considerable percentage of the cost for instruction of all kinds given within the school system. No other subject has anything approximating equal attention given it outside of school; and few, if any, subjects have equally little attention given them in school. Wilmington is far from singular in this respect. But the situation is presented squarely here for consideration because, while Wilmington is not by any means at the bottom of the scale with relation to her school music, but is, indeed, doing a certain portion of musical work well and faithfully, she is still far below her possibilities. In view of the very exceptional interest of her school constituency in music, as revealed in this study of their out-of-school activities, the schools should make effort of greater breadth and degree.

#### VOCATIONAL INTEREST AMONG PUPILS TAKING PRIVATE LESSONS.

The second phase of the inquiry is of very different import. The greater part of private study of music represents, of course, a cultural interest. Supervisors of music in public schools, above all other classes of teachers of music, will agree that this is the more valuable interest to mankind; for dealing with the masses of people

as they do, they come to comprehend that to fit music into the lives of all is greater than to fit a few into a musical life. But to-day the educational world is paying large attention to vocational subjects, and in doing this, indeed, is making small discrimination between vocational activities that create wealth and those that produce wages or salary. To the extent that subjects receive attention because of their vocational promise, music deserves high rank; for not only does it stand quite near the top of the list in the numbers following it vocationally, but it produces an income that gives it good place, while insuring the musician of good surroundings and associations. And with all this it does, like literature and art and beauty of all kinds, create wealth—not of a material kind, such as the farmer creates, but of a kind more impalpable, which, for want of a more exact word, we must term spiritual.

This vocational aspect of music is but lately discovered. It is doubtful whether, in nine cities out of ten, it is even dimly suspected; yet these same cities are likely to be spending ten times as much money and effort on some subject that has small vocational interest as they spend on music, which has large vocational interest. In Wilmington we have found that the course in the schools tends to create little breadth of musical interest, and that that which is created outside finds little encouragement or field for expression within the schools. The expectation would therefore be that slight vocational interest would be found. The tables following should be studied in that light.

TABLE 9.—*Vocational interest in music among public-school pupils (white).*

Music pupils.	Schools and grades.					Total.
	No. 1, 7 A B, 8 A B.	No. 4, 7 A B, 8 A B.	No. 24, 7 A B, 8 A B.	No. 28, 7 A B, 8 A B.	High school years, 9-12.	
Pupils answering inquiry.....	343	334	520	563	1, 264	3, 024
Have earned or are earning money through music.....	2	6	17	0	25	<sup>1</sup> 50
Expect to earn money through music.....	27	13	85	4	83	<sup>2</sup> 212
Expect to make music chief or entire source of income.....	31	6	40	4	25	<sup>3</sup> 106
Special branches of practice pursued or contemplated:						
Teaching piano.....	8	1	24	4	11	48
Teaching violin.....	1	1	1			3
Teaching voice.....			2			2
Teaching music(?).....		2	1			2
Mandolin players.....				1		1
Playing in band or orchestra.....	6	1	2		13	22
Church organists.....	4				8	13
Choir singers.....					10	18
Concert performers.....	1		2		6	9
Composers.....					1	1
Not specified.....	11					11
Do not know.....					4	4

<sup>1</sup> Or more than 1.65 per cent of those reporting.<sup>2</sup> More than 7 per cent of those reporting.<sup>3</sup> More than 3.5 per cent of those reporting.

The table needs much interpretation. It will be observed that it includes pupils only from the seventh to the twelfth year in school, inclusive. These reported past or present vocational activity, then future or prospective activity, and full professional intention, where there was such. It is impossible to estimate the number of duplications included in such a report. Thus a pupil may have earned money in the past, may expect to earn money in the future, and may expect this future earning to constitute his entire income, and may report all three times. On the other hand, to make inquiry only as to past activity, or only as to future intention, would give uncertain results. Each of the three queries has significance in itself, and each forms to a degree a means of checking on the others. There can certainly be no question as to the vocational aspect of music in relation to the more than 1.65 per cent of those who have already earned money through music. And, even allowing for some youthful dreams that may not come true, the 7 per cent plus expecting to earn money in the future through music is of outstanding significance. It will be noted that just half of these expect to make music their entire source of income. This is on the assumption, too, that those who declared full professional intention also answered affirmatively on the preceding question. A bright pupil who looked ahead through the questions might easily have postponed his answer until the point of "chief or entire source of income" was stated. In such case, some of those who replied affirmatively at the latter point would need to be added to the 7 per cent replying affirmatively to the question preceding.

Doubt as to the reliability of the answers, if there were any, or as to the positiveness of intention, is removed when one examines the list of specialized activities chosen. While all the 212 who claim a future vocational interest do not specify the line of activity they expect to follow, 119 are definite as to this line, and 4 say frankly they do not know. This makes a total of 123 whose intentions are certainly fixed; and this is more than the number (106) declaring a full professional intention. Intrinsic evidence on the papers justifies the belief that oversight or uncertainty as to the way to answer was much more effective than vagueness of intention in restraining the remainder of the 212 from specifying their prospective lines of endeavor.

Whether 7 per cent or  $3\frac{1}{2}$  per cent be the more reliable index, the vocational interest is large enough to justify a plea for its greater recognition. Few other highly specialized fields would, it is probable, be chosen by equal numbers. The school system owes more to these pupils than it has given them.

The next table holds even more interest of a special kind.

TABLE 10.—*Vocational interest in music among pupils of public school No. 16 (colored).*

Pupils.	7 A B, 8 A B.	B 1-2-3-4, A 1-2-3-4.	Total.
Pupils answering inquiry.....	160	104	264
Have earned or are earning money through music.....	4	23	<sup>1</sup> 27
Expect to earn money through music.....	25	18	<sup>2</sup> 43
Expect to make music chief or entire source of income.....	13	7	<sup>3</sup> 20
Special branches of practice pursued or contemplated:			
Teaching piano.....	11	4	15
Teaching violin.....		1	1
Playing in band or orchestra.....	4	3	7
Church organists.....	1	1	2
Concert performers.....	2	4	6
Not specified.....	1		1

<sup>1</sup> Or more than 10.22 per cent of those reporting.<sup>2</sup> More than 16.28 per cent.<sup>3</sup> More than 7.57 per cent.

The explanations made in connection with the first table apply equally well to this final one. The special feature that is of paramount interest is the greatly increased percentages of those who have earned, or expect to earn, all or a part of their livelihood through music. Instead of 1.65 per cent plus who have earned some money by means of their musical activity, we now have 10.22 per cent plus. The percentage who expect to earn some amount of money in future is considerably more than doubled; and similarly there are more than twice as many who expect to make music their chief or sole source of income. The natural aptitude of a race not yet moulded into conformity with our scientific and industrial type of civilization speaks here. Art does not prosper when a race grows absorbed in calculating in terms of material advancement. Elizabethan literature sprang from a comparatively simple stage of English life. Similarly the adolescent age of Germany, when men lived on the basis of human impulse, gave birth to that great musical art which that country has since so completely passed beyond and discredited. But out of Australia we have Percy Grainger; and from the colored race, before they reach their shrewd middle age, we may expect those frank impulses that lead into all forms of art expression, of one grade or another. Years of sophistication will be necessary to the final suppression of these native desires, and the substitution of economic ambition. It would be a mistake to try to suppress, or do aught but encourage, these natural tendencies. The world will profit by encouraging from all the best product which their special aptitudes can produce. If the Negro can earn his livelihood by producing music for his own race or for white races, no harm to any of them can come from full development of this racial capability.

## MUSIC IN THE COMMUNITY OUTSIDE OF THE PUBLIC SCHOOLS.

We have said that musical development in the schools was not commensurate with that in the community. This holds true only

in respect to and in view of the private study of music just discussed. Music in Wilmington seems to be largely individualistic. In one sense this is entirely proper and desirable. Music is valuable when it is appropriated by the individual as something within his own breast to which he can turn and from which he may receive refreshment of spirit at any and all times. But just as religion, which in its ultimate nature is individualistic, extends its ministrations to more men by forms of public worship, so must music reach others and quicken its own tendency to service by forms of production in which many take part. In such socialized, community forms of musical activity Wilmington is comparatively lacking. It has no musical club, no large amateur or professional orchestras, or bands with a progressive musical aim underlying them, no regular and permanent series of concerts, under local management, seeking to bring the best in music to the general public. Its proximity to Philadelphia is doubtless a deterrent influence, but the great mass of Wilmington's citizens do not go frequently to Philadelphia to hear good music, and even if they did they would profit much more by making music among themselves, for themselves. The concerts given in Wilmington by the Philadelphia Orchestra are very valuable, but they do not reach the masses. One is discouraged when he thinks of the little opportunity the children of the city have to hear good music, and of the little stimulus they receive outside of the schools, as well as within them, to prosecute the study in which this survey finds them engaged. The Community Chorus directed by Mr. Harry Barnhart has, from information obtained as to the attendance, nature of the programs, etc., performed a most valuable service in a situation peculiarly in need of it. The Orpheus Club and the Westminster Glee Club also contribute toward the need for organized musical effort; and during the war a measure of community activity in music flourished. For the rest, the church music in Wilmington seems to be the phase of expression that is most influential in forming the musical aims and concepts of the rising generations. Doubtless this accounts for the number of school pupils, small in an absolute but strikingly large in a relative way, who announced that their vocational intention was to become choir singers or organists. It is doubtful whether an equally large percentage so intentioned could be found in any but a very few other cities. It is significant, too, that this tendency is more general among the whites, whose church music is comparatively outstanding, than among the colored people. It is admirable in itself, but should not stand by itself. It will be a happy day for Wilmington when the musical interest that is so strongly indicated by the amount of individual study shall realize itself in cooperative musical movements and give the city, musically speaking, a civic consciousness.



## RECOMMENDATIONS.

It is recommended:

1. That monotoners shall not be segregated, but be seated with, and participate in all singing by, their classes, though they should sing softly and with a small voice.

2. That the teachers be instructed in definite steps by which monotoners may be cured; and that these steps be characterized chiefly by the use of syllables and vowels, such as *nee*, *noo*, *iny*, etc., that will give high and frontal placement to the voice, incorporated in tonal successions that begin on E flat or E, fourth space, treble clef.

3. That blank music-writing books, or at least blank music paper, be provided all pupils from second to eighth grades, inclusive; and that the books or paper so provided for lower grades be specially ruled with widely spaced staff lines.

4. That the books now in use be immediately regraded according to the intention of their author; and that a much larger part, if not all, of technical instruction be then specifically related to the song material found in the books, and be presented as correlated to the songs and helpful to their mastery.

5. That music textbooks of the kind now in use and so regraded be purchased by the board of education in numbers sufficient to supply each child with an individual copy of the book designed for his grade.

6. That music books issued to pupils shall, after all pupils are supplied, be kept in the pupils' desks.

7. That supplementary books of music containing many good songs of easy grade technically and arranged for two or three treble-voice parts be purchased for supplementary use in fifth and sixth years, and that books of songs be added for seventh and eighth years, such as will provide graded song material using bass clef in amount sufficient for those two years, and also with graded song material using only treble clef in amount sufficient for those two years; and that this song material, together with such similar song material as is now in use, be treated as sight-singing material, with such complementary technical instruction and elucidation as may be necessary.

8. That books or sheets of music containing bass parts be used for all seventh and eighth grades in which 8 to 10 per cent of the pupils in a music class have changed voices. (The technical grade of this music should be such as will enable the pupils to concentrate effort almost wholly upon maintaining independent parts correctly and gaining a knowledge of bass-clef notation as related to their vocal practice.)

9. That the voices of seventh and eighth grade pupils be examined as formally as may be necessary once each semester, and that each

pupil be informed of the range of his voice and be assigned a suitable part to sing.

10. That 75 minutes per week for first and second grades and 100 minutes per week for all grades above be recognized as the standard time allotted to music, and that every effort be made to give all classes, especially those of seventh and eighth years, such amount of time.

11. That pupils who play piano be sought out and requested to play accompaniments, marches, etc., whenever such service would contribute to the enjoyment of the pupils.

12. That pupils who are studying musical instruments be requested to play occasionally in their rooms, as for morning exercise; such numbers as violin or piano solos, violin duets; etc., being solicited.

13. That every effort be made to encourage in the grade schools larger and more permanent organizations of instrumentalists, of the nature of school orchestras.

14. That the board of education purchase music for any such organizations that may be formed, and also provide the instructor or director for each, if no teacher in the present staff can undertake such duty.

15. That in the high schools, credit toward graduation be given for specialized technical study pursued under teachers outside the school, on condition that this study is submitted to observation and examination by the supervisor of music in the schools and by such body of examiners as may be selected, and is found worthy.

16. That at least one piano in each school be considered as a fundamental part of the equipment of a school, to be provided at school expense; and that the board of education begin systematically, and as rapidly as possible, to supply all schools in Wilmington not now so provided with at least one piano.

17. That in Wilmington, as in Pittsburgh, Pa., where the board of education annually appropriates \$1,000 for the purchase of orchestral instruments, a sum be set aside annually for the purchase of orchestral instruments that shall be the property of the school system and be loaned to deserving pupils so long as they take good care of them and study faithfully to prepare to enter the high school orchestra, or so long as they are satisfactory members of such orchestra; or failing in such appropriation, or in addition to any that may be made, that entertainments, such as school concerts, etc., be given, the proceeds to be devoted to the purchase of orchestral instruments, and that the instruments purchased be those necessary to orchestral completeness but not ordinarily owned by school pupils, such as bass viols, violas, violoncellos, clarinets, trombones, French horns, oboes, bassoons, and tympani.

18. That credit toward graduation be given by the high school for satisfactory playing in the high-school orchestra.

19. That vigorous encouragement be given immediately to the organization, in the high schools, of choruses and glee clubs of mixed voices and also of treble voice only; membership in such classes or groups to be elective or by selection, the work to be earnest and progressive, and to be credited, hour for hour of recitation, equally with any subject not requiring outside preparation.

20. That a course in musical appreciation be formulated and offered in high school, such course possibly to be, for a time, a popular course, appealing to large numbers, and designed to give a great proportion of time to hearing the best and greatest in music rather than to analyzing it minutely.

21. That songs for use in high-school assemblies be provided in sufficient quantities to give each pupil a copy; and that good and progressive chorus work be further aided by giving time for rehearsals and adopting a plan of seating that will permit of better voice groupings.

22. That earnest and unremitting effort be made in the direction of finally establishing in the high schools courses in music that shall at least include harmony (2 years), music appreciation (2 years), chorus, orchestra, and the crediting of outside musical study, according to some such plan of credit and hours as that represented in the following:

*Courses of study in music.*

Subject.	Length, in se- mesters.	Periods per week.	Remarks.
Harmony.....	4	5	Offered only as complementary to technical study.
Do.....	4	3	
Appreciation.....	4	5	
Do.....	4	3	Do.
Do.....	4	2	An elementary or popular course, to consist of more listening and less analysis.
Orchestra.....	1 to 8	5	Any chorus other than the "required." Minimum requirement for practice, 6 hours (60 minutes each). Theory, if in school, 3 periods; if out of school, not defined as to time or form of study, but only as to attainments required. See "Plan for crediting outside musical study."
Do.....	1 to 8	2	
Chorus.....	1 to 8	(?)	
Outside technical practice; with complementary theory in or out of school; the two aggregating 10 periods per week.	1 to 8	10	
Special course: Outside technical practice.	2	5	

23. That another instructor be added immediately to the special departmental corps, and high-school and supervisory work be then so divided between the present supervisor and the new member that all the musical instruction in high school, including the orchestra, and a plan of supervisory visits that will cover all grade schoolrooms

once in three weeks at most, can be successfully undertaken by the two.

24. That the special instructor in music in colored schools be allowed a number of chorus books sufficient to supply every student participating in assembly exercises in Howard High School with an individual copy, and that adequate provision of orchestral music for the orchestra there also be made, in order that the excellent work under way in that school may be further developed.

25. That effort be made to articulate much more closely the music department in the schools with the musical interests in the community outside. As aiding toward this—

(a) Musicians, singly or in groups, could be invited to contribute numbers or entire programs to high-school assembly exercises.

(b) Professional singers and players on various instruments could give lecture recitals, explanatory of the technical or artistic characteristics of their medium of expression, to high-school students gathered for assembly exercises.

(c) Musical programs by high-school students, assisted by local professional musicians, could be given.

(d) A local manager might be induced to offer a series of good concerts, to which school students could secure admission at reduced prices.

(e) A vigorous campaign should be inaugurated to sell students and teachers tickets to the concerts of the Philadelphia Orchestra at reduced prices.

26. That some eligibility requirements in music for all grade teachers in Wilmington and in the State of Delaware be formulated and adopted, these requirements to specify that all teachers to be certificated must at least know the rudiments of music to an extent which would be represented by a course covering 30 semester hours, preferably distributed at the rate of one hour per week of recitation.

## APPENDIX.

**TABLE 1.—Fall enrollment in 1916-1920, distributed according to grades and sexes.**

### WILMINGTON HIGH SCHOOL (WHITE).

Grades.	October, 1916.			October, 1917.			October, 1918.			October, 1919.			September, 1920.		
	Boys.	Girls.	Both.	Boys.	Girls.	Both.	Boys.	Girls.	Both.	Boys.	Girls.	Both.	Boys.	Girls.	Both.
9.....	189	224	413	186	239	425	218	244	462	278	287	565	327	288	621
10.....	123	134	257	96	118	214	101	130	231	145	162	307	192	190	382
11.....	84	69	153	79	65	144	69	63	134	70	99	169	79	93	172
12.....	50	59	109	44	49	93	44	47	91	47	52	99	47	79	126
<b>Total.</b>	<b>446</b>	<b>496</b>	<b>932</b>	<b>405</b>	<b>471</b>	<b>876</b>	<b>432</b>	<b>484</b>	<b>918</b>	<b>540</b>	<b>600</b>	<b>1,140</b>	<b>645</b>	<b>650</b>	<b>1,301</b>

### HOWARD HIGH SCHOOL (COLORED).<sup>1</sup>

9.....	9	22	31	10	42	52	3	20	23	9	20	29	13	29	42
10.....	4	18	22	6	12	18	7	30	37	4	21	25	10	11	21
11.....	5	8	13	4	11	15	4	8	12	6	20	26	2	17	19
12.....	4	3	7	2	11	13	1	10	11	4	4	8	5	16	21
13.....	0	11	11	0	3	3	0	6	6	0	2	2	0	3	3
14.....	0	1	1	0	1	1	0	3	3	0	6	6	0	2	2
<b>Total.</b>	<b>22</b>	<b>63</b>	<b>85</b>	<b>22</b>	<b>80</b>	<b>102</b>	<b>15</b>	<b>77</b>	<b>92</b>	<b>23</b>	<b>73</b>	<b>96</b>	<b>30</b>	<b>78</b>	<b>108</b>

<sup>1</sup> The figures in the last three columns are for October, 1920, instead of September, 1920.

*Summary showing per cent each grade enrollment is of total enrollment.*

Grades.	Wilmington High School (white), 1920.	Howard High School (colored), 1920.	All United States, 1917-18.
9.....	47.7	40.8	39.8
10.....	29.4	20.4	26.9
11.....	13.2	18.4	18.8
12.....	9.7	20.4	14.5
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**TABLE 2.—Enrollment for October and June, according to years and grades.**

### WILMINGTON HIGH SCHOOL.

Grades.	1916, Oct.	1917, June.	1917, Oct.	1918, June.	1918, Oct.	1919, June.	1919, Oct.	1920, June.	1920, Sept.
9B.....	251	241	238	180	297	259	335	266	375
9A.....	182	188	187	182	165	220	230	254	246
10B.....	159	117	128	144	137	128	209	198	223
10A.....	98	99	86	87	94	105	98	140	159
11B.....	95	63	89	74	79	108	100	71	115
11A.....	58	59	55	60	55	64	69	79	57
12B.....	83	55	64	62	62	60	74	75	102
12A.....	26	35	29	35	29	46	25	44	24
<b>Total.....</b>	<b>932</b>	<b>857</b>	<b>876</b>	<b>824</b>	<b>918</b>	<b>990</b>	<b>1,140</b>	<b>1,127</b>	<b>1,301</b>

TABLE 2.—Enrollment for October and June, according to years and grades—Continued.

## HOWARD HIGH SCHOOL.

9B.....	21	24	15	18	28
9A.....	10	28	8	11	14
10B.....	13	9	22	14	13
10A.....	9	9	15	11	8
11B.....	11	8	8	13	8
11A.....	2	7	4	13	11
12B.....	2	7	6	4	12
12A.....	5	6	5	4	9
Total.....	78	98	83	88	108

TABLE 3.—Persistence in school of classes entering from September, 1915, to February, 1919.

## WILMINGTON HIGH SCHOOL.

Entering date.	9th.		10th.		11th.		12th.		Graduated.	Finishing date.
	B.	A.	B.	A.	B.	A.	B.	A.		
Sept., 1915:										
Number entering.....	274	223	159	99	89	60	62	46	62	} June, 1919
Per cent.....	100.0	81.4	58.0	36.2	32.4	21.8	22.6	17.8	22.7	
Feb., 1916:										
Number entering.....	200	162	117	86	74	55	60	25	25	} Feb., 1920
Per cent.....	100.0	81.1	58.6	43.0	37.0	27.6	30.0	12.5	12.5	
Sept., 1916:										
Number entering.....	251	188	128	87	79	64	74	44	62	} June, 1920
Per cent.....	100.0	75.0	51.0	34.7	31.5	25.5	29.5	17.6	24.7	
Feb., 1917:										
Number entering.....	241	187	144	94	108	69	75	24	.....	} Feb., 1921
Per cent.....	100.0	77.5	59.6	38.9	44.6	28.6	31.1	10.0	.....	
Sept., 1917:										
Number entering.....	238	182	137	105	100	79	102	.....	.....	} June, 1921
Per cent.....	100.0	76.4	57.4	44.0	42.0	33.1	42.7	.....	.....	
Feb., 1918:										
Number entering.....	180	165	128	98	71	57	.....	.....	.....	} Feb., 1922
Per cent.....	100.0	91.5	71.0	49.0	39.4	31.6	.....	.....	.....	
Sept., 1918:										
Number entering.....	297	220	209	140	115	.....	.....	.....	.....	} June, 1922
Per cent.....	100.0	74.1	70.4	47.1	38.7	.....	.....	.....	.....	
Feb., 1919:										
Number entering.....	259	230	198	159	.....	.....	.....	.....	.....	} Feb., 1923
Per cent.....	100.0	89.1	76.6	61.4	.....	.....	.....	.....	.....	
Average per cent persisting.....	100.0	80.8	62.8	44.3	37.9	28.0	31.2	14.5	20.0	
All high schools in United States.....	100.0	.....	72.0	.....	53.2	.....	44.0	.....	40.7	

## HOWARD HIGH SCHOOL.

Sept., 1916:									
Number entering.....	21	9	8	4	9	} June, 1920			
Per cent.....	100.0	42.8	38.1	19.0	42.8				
Sept., 1917:									
Number entering.....	24	22	13	12		} June, 1921			
Per cent.....	100.0	91.6	54.1	50.0					
Sept., 1918:									
Number entering.....	15	14	8			} June, 1922			
Per cent.....	100.0	93.4	53.3						
Sept., 1919:									
Number entering.....	18	13				} June, 1923			
Per cent.....	100.0	61.6							
Average persisting.....	100.0	72.4	48.5	34.5					

TABLE 4.—Enrollments and failures in the Wilmington High School, June, 1920.

Classes.	Girls.			Boys.			Girls and boys.		
	En-rolled.	Failed.	Per cent.	En-rolled.	Failed.	Per cent.	En-rolled.	Failed.	Per cent.
English:									
9B.....	124	26	21.0	138	42	30.4	262	68	26.0
9A.....	123	10	8.1	125	25	20.0	248	35	14.1
Both.....	247	36	14.6	263	67	25.5	510	103	20.2
10B.....	105	24	23.0	91	18	19.8	196	42	21.5
10A.....	76	4	5.6	66	6	9.1	142	10	7.0
Both.....	181	28	15.4	157	24	15.3	338	52	15.4
11B.....	39	1	2.6	29	0	.0	68	1	1.5
11A.....	41	3	7.3	30	1	3.3	71	4	5.6
Both.....	80	4	5.0	59	1	1.7	139	5	3.6
12B.....	32	1	3.1	31	2	6.5	63	3	4.8
12A.....	14	0	.0	10	0	.0	24	0	.0
Both.....	46	1	2.2	41	2	4.8	87	3	3.4
Elementary algebra:									
9B.....	115	22	19.1	138	39	28.3	253	61	24.1
9A.....	114	25	21.9	125	25	20.0	239	50	21.0
Both.....	229	47	20.6	263	64	24.3	492	111	22.7
Elementary algebra (third half):									
10B.....	63	6	9.6	79	15	19.0	142	21	14.8
10A.....	5	1	20.0	4	1	25.0	9	2	22.2
Both.....	68	7	10.5	83	16	19.3	151	23	15.2
Intermediate algebra:									
10A.....				7	1	14.2	7	1	14.2
11A.....				1	1	100.0	1	1	100.0
12B.....	12	3	25.0	17	6	35.3	29	9	32.1
All.....	12	3	25.0	25	8	32.0	37	11	29.8
Plane geometry:									
10B.....	4	2	50.0	9	2	22.2	13	4	30.8
10A.....	44	11	25.0	45	19	42.2	89	30	33.5
Plane geometry, retarded:									
11B.....	20	4	20.0	17	4	23.5	37	8	21.6
11A.....	4	2	50.0	5	2	40.0	9	4	44.5
All geometry (pl.).....	72	19	26.8	76	27	35.5	148	46	31.5
Solid geometry:									
10A.....				1	0	.0	1	0	.0
11B.....	1	1	100.0	6	3	50.0	7	4	57.3
11A.....	18	2	11.1				18	2	11.1
12B.....	1	1	100.0	3	1	33.3	4	2	50.0
12A.....				1	1	100.0	1	1	100.0
All.....	20	4	20.0	11	5	45.6	31	9	29.0
Trigonometry:									
12B.....	2	1	50.0	10	4	40.0	12	5	41.7
12A.....	1	0	.0				1	0	.0
Both.....	3	1	33.3	10	4	40.0	13	5	38.5
Commercial arithmetic:									
10B.....	4	3	75.0				4	3	75.0
10A.....	19	4	21.0	9	0	.0	28	4	14.3
11B.....				1	0	.0	1	0	.0
All.....	23	7	30.3	10	0	.0	33	7	21.2
Elementary Latin:									
9B.....	57	19	33.0	88	53	60.2	145	72	49.6
9A.....	61	17	27.9	92	35	38.0	153	52	34.0
Both.....	118	36	31.0	180	88	49.0	298	124	41.7
Elementary Latin, retarded:									
10B.....	10	5	50.0	18	5	27.8	28	10	35.7
10A.....	1	0	.0	1	0	.0	2	0	.0
11B.....	2	0	.0				2	0	.0
All.....	13	5	38.4	19	5	26.4	32	10	31.3
Caesar, Latin II:									
10B.....	51	24	47.1	40	19	47.3	91	43	47.3
10A.....	43	19	44.2	43	21	48.8	86	40	46.5
Caesar, retarded:									
11B.....	5	0	.0	7	3	42.9	12	3	25.0
11A.....	1	0	.0				1	0	.0
12B.....				1	0	.0	1	0	.0
All Latin II.....	100	43	43.0	91	43	47.3	191	86	45.0
Cicero, Latin III:									
11 and 12.....	28	8	28.6	6	2	33.3	34	10	29.5
Virgil, Latin IV:									
12.....	19	1	5.3	5	0	.0	24	1	4.5
General science:									
9B.....	58	9	15.5	40	11	27.5	98	20	20.4
9A.....	62	4	7.7	23	4	17.4	75	8	10.6
Both.....	110	13	11.9	63	15	23.8	173	28	16.2

TABLE 4.—*Enrollments and failures in the Wilmington High School—Continued.*

Classes.	Girls.			Boys.			Girls and boys.		
	En-rolled.	Failed.	Per cent.	En-rolled.	Failed.	Per cent.	En-rolled.	Failed.	Per cent.
Physiology:									
9B.....	66	4	6.1	88	9	10.2	154	13	8.5
9A.....	4	0	.0				4	0	.0
Both.....	70	4	5.7	88	9	10.2	158	13	8.2
Physical geography:									
9A.....	58	10	17.2	83	20	24.1	141	30	21.3
10B.....	4	0	.0	3	1	33.3	7	1	14.3
Both.....	62	10	16.2	86	21	24.4	148	31	21.0
Biology:									
10-12.....	59	3	5.1	46	0	.0	105	3	2.9
Physics:									
10-12.....	57	10	17.5	65	15	23.1	122	24	19.7
Chemistry:									
11-12.....	9	2	22.2	33	13	39.4	42	15	35.7
Community civics:									
9-10B.....	127	29	22.8	84	13	15.5	211	42	20.0
Early European history:									
10-11.....	79	22	27.8	43	9	20.9	122	31	25.4
Ancient history:									
10-12B.....	46	7	15.2	49	8	16.3	95	15	15.8
Modern history:									
9A-12B.....	5	2	40.0	16	1	6.2	21	3	14.2
American history:									
10A-12B.....	25	2	8.0	19	2	10.6	44	4	9.1
Civics:									
11B-12A.....	13	0	.0	39	4	10.2	52	4	7.8
French:									
9A-12B.....	193	35	18.1	130	29	22.4	323	64	19.8
Spanish:									
10A-12A.....	61	2	.....	25	3	.....	86	5	.....
Free-hand drawing; art;									
mechanical drawing:									
9B and A.....	68	10	14.7	206	54	26.2	.....	.....	.....
10B and A.....	103	4	8.9	94	13	13.8	.....	.....	.....

TABLE 5.—*Enrollments, percentages dropped, percentages failed, and numbers of repeaters in five departments of the Wilmington high schools, distributed according to individual teachers.*

## WILMINGTON HIGH SCHOOL.

Teachers.	Pupils enrolled.	Per cent dropped of those enrolled.	Per cent failed of those remaining.	Number of repeaters, Sept., 1920.	Subjects.
*No. 1.....	49	8.3	26.6	12	French.
*No. 2.....	120	8	26.0	27	Do.
No. 3.....	96	3.2	12.7	9	Do.
No. 4.....	108	7.8	10.5	10	Do.
No. 5.....	124	10.4	27.5	21	Eng. 9B.
No. 6.....	133	10.5	21.0	17	Eng. 10A and B.
No. 7.....	124	5.7	17.9	15	Eng. 10 and 12.
*No. 8.....	40	.0	17.5	7	Eng. 9B.
*No. 9.....	106	12.3	18.3	4	Eng. and French.
No. 10.....	129	3.9	14.5	14	Eng. 9A and B.
No. 11.....	128	7.8	11.0	9	Eng. 10A and B.
No. 12.....	118	.0	5.1	6	Eng. 11A and B.
No. 13.....	114	.9	2.7	1	Eng. 9, 10, 12.
No. 14.....	156	11.6	25.7	35	Alg. 9 and 10.
No. 15.....	165	11.5	24.0	19	Alg. 9A and B.
No. 16.....	153	9.1	22.3	25	Alg. 9 and 10.
No. 17.....	165	10.9	21.2	29	Alg. 9A and B.
No. 18.....	82	11.0	31.5	13	Alg., geom., trig.
No. 19.....	136	12.5	26.1	23	Geom., alg.
No. 20.....	76	9.2	15.9	11	Pl. and sol. geom.
No. 21.....	155	6.5	45.5	38	Latin 9A and B.
*No. 22.....	116	2.6	36.4	28	Do.
No. 23.....	125	8.0	44.4	33	Latin 9A and 10.
No. 24.....	88	12.0	41.0	16	Latin 9, 10, 11.
No. 25.....	118	8.5	29.6	21	Latin 10, 12.
*No. 26.....	166	8.4	21.0	18	Com. civ., hist. 9, 10.
No. 27.....	90	8.9	17.3	9	Hist. 10, 12.
No. 28.....	106	10.4	16.8	8	Hist. 10, 11.
No. 29.....	116	15.5	15.3	14	Hist. 10A and B.

\* Not now connected with the Wilmington High School.



TABLE 5.—*Enrollments, percentages dropped, percentages failed, etc.*—Continued.

## HOWARD HIGH SCHOOL.

Teachers.	Pupils enrolled.	Per cent dropped of those enrolled.	Per cent failed of those remaining.	Number of repeaters, Sept., 1920.	Subjects.
No. 1.....	81	12.3	21.2	8	French, Lat. 9B.
No. 2.....	74	12.2	15.4	6	Latin.
No. 3.....	88	14.8	17.3	11	Math. hist.
No. 4.....	49	.0	.0	0	Science.
No. 5.....	94	13.8	7.4	10	English.
No. 6.....	64	12.5	7.2	0	Phys., geog., hist. and civ.
No. 7.....	49	16.4	.0	0	Domestic science.
No. 8.....	71	18.3	.0	0	Domestic art.
No. 9.....	46	.0	.0	0	Mech. drawing, woodwork.
No. 10.....	345	.0	.0	0	El. drawing and sewing.

TABLE 6.—*Number of units of the various subjects per week. Wilmington High School—Part I.*

Subjects. <sup>1</sup>	Classical.	Latin scientific.	General.	Commercial.
English.....	4.0	4.0	4.0	3.0
Mathematics.....	3.0	4.0	2.5	1.5
Latin.....	4.0	2.0		
French.....	3.0	2.0	2.0	
Spanish.....				2.0
Science.....	2.0	3.0	4.0	2.0
Social studies.....	2.0	2.0	4.0	3.5
Bookkeeping.....				2.0
Typewriting.....				1.25
Shorthand.....				1.0
Penmanship and spelling.....				.8
Manual training.....	.8	.8	.8	.8
Home economics.....	.4	.4	.4	.4
Drawing.....	.4	.4	.4	
Elective.....		.5	1.0	
Total, for boys.....	19.2	18.7	18.7	17.85
Units, for girls.....	18.8	18.3	18.3	17.45

<sup>1</sup> Gymnasium, 2 periods per week for all ninth and tenth grades, in addition to the above.TABLE 6.—*Number of recitation periods and laboratory or shop periods<sup>1</sup> per week in each grade—Part II.*

Grades.	Classical.			Latin-Scientific.			General.			Commercial.		
	Recitation.	Laboratory.	Total.	Recitation.	Laboratory.	Total.	Recitation.	Laboratory.	Total.	Recitation.	Laboratory.	Total.
9B boys.....	20	8	28	20	8	28	20	8	28	23	6	29
9B girls.....	20	6	26	20	6	26	20	6	26	23	4	27
9A boys.....	23	8	31	20	8	28	20	8	28	23	6	29
9A girls.....	20	6	26	20	6	26	20	6	26	23	4	27
10B boys.....	20	8	28	20	8	28	20	8	28	22	6	28
10B girls.....	20	6	26	20	6	26	20	6	26	22	4	26
10A boys.....	20	8	28	20	8	28	20	8	28	20	6	26
10A girls.....	20	6	26	20	6	26	20	6	26	20	4	24
11B.....	20	5	25	23	4	27	24	3	27	20	10	30
11A.....	23	0	23	18	4	22	18	4	22	20	5	25
12B.....	23	4	27	23	4	27	23	4	27	25	0	25
12A.....	23	4	27	23	4	27	23	4	27	25	0	25
Average for boys.....			26.4			26.9			26.9			25.9
Average for girls.....			25.4			25.9			25.9			24.9

<sup>1</sup> This list includes attendance in gymnasium.

TABLE 7.—*Enrollment of the Wilmington High School, September, 1920, distributed according to curriculums, sexes, and grades.*

Grades.	Classical.			Latin-Scientific.			General.			Commercial.			Household arts, girls. <sup>1</sup>	Cooperative, <sup>1</sup> boys.	All curriculums.		
	Boys.	Girls.	Both.	Boys.	Girls.	Both.	Boys.	Girls.	Both.	Boys.	Girls.	Both.			Boys.	Girls.	Both.
B 9th.....	18	50	68	100	14	114	35	4	39	28	106	134	6	14	195	180	375
A 9th.....	22	47	69	60	6	66	12	0	12	26	53	79	8	12	132	114	246
All 9th.....	40	97	137	160	20	180	47	4	51	54	159	213	14	26	327	294	621
B 10th.....	15	49	64	66	8	74	15	6	21	14	35	49	12	3	113	110	223
A 10th.....	13	41	54	33	6	39	24	5	29	5	24	29	4	4	79	80	159
All 10th.....	28	90	118	99	14	113	39	11	50	19	59	78	16	7	192	190	382
B 11th.....	8	20	28	20	12	32	17	6	23	7	25	32	0	0	52	63	115
A 11th.....	1	7	8	13	6	19	4	3	7	9	14	23	0	0	27	30	57
All 11th.....	9	27	36	33	18	51	21	9	30	16	39	55	0	0	79	93	172
B 12th.....	5	16	21	23	16	39	6	7	13	7	22	29	0	0	41	61	102
A 12th.....	3	8	11	3	4	7	0	2	2	0	4	4	0	0	6	18	24
All 12th.....	8	24	32	26	20	46	6	9	15	7	26	33	0	0	47	79	126
All grades...	85	238	323	318	72	390	113	33	146	96	283	379	30	33	645	656	1,301
Per cent of all enrolled.....	.....	.....	24.9	.....	.....	30.0	.....	.....	11.2	.....	.....	29.1	2.3	2.5	.....	.....	.....

<sup>1</sup> The household arts and cooperative curriculums have been in operation for two years only.

TABLE 8.—*Teachers in Wilmington High School (W) and in Howard High School (H), distributed according to years of training beyond elementary school or as to degrees earned.*

Years of training beyond elementary school.	Teachers holding no degree or diploma.		Holding diploma only.		Holding bachelor's degree.		Holding master's degree.		Total teachers.	
	W.	H.	W.	H.	W.	H.	W.	H.	W.	H.
Between 1 and 2 years <sup>1</sup> .....	2	.....	.....	.....	.....	.....	.....	.....	2	.....
Between 2 and 3 years.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
Between 3 and 4 years.....	4	.....	.....	.....	.....	.....	.....	.....	4	.....
Between 4 and 5 years.....	5	.....	.....	.....	.....	.....	.....	.....	5	.....
Between 5 and 6 years.....	2	1	2	1	.....	.....	.....	.....	4	2
Between 6 and 7 years.....	3	2	2	.....	.....	.....	.....	.....	5	2
Between 7 and 8 years.....	2	.....	3	1	3	.....	.....	.....	8	1
Between 8 and 9 years.....	1	.....	.....	.....	14	5	1	.....	16	5
Between 9 and 10 years.....	.....	.....	.....	.....	2	1	1	.....	3	1
Between 10 and 11 years.....	1	.....	.....	.....	2	.....	2	.....	5	.....
Eleven or more years.....	.....	.....	.....	.....	.....	.....	3	1	1	.....
Total.....	21	3	7	2	21	6	5	.....	54	11
Percentages.....	38.9	27.3	13	18.1	38.9	54.6	9.2	.....	100	100

<sup>1</sup> But less than 2 years.

<sup>2</sup> Art teacher.

<sup>3</sup> Smith-Hughes cooperative teacher; has both B. S. and C. E.

TABLE 9.—*Salaries and experience of the teachers in the two Wilmington high schools.*

Teachers without college degrees.					Wilmington High School.	Teachers without college degrees.				
Teachers having the various amounts of salary and experience.			Years of experience.		Amount paid as salaries.	Years of experience.		Teachers having the various amounts of salary and experience.		
Total.	Women.	Men.	Ex-tremes.	Median.		Median.	Ex-tremes.	Men.	Women.	Total.
.....	.....	.....	.....	.....	\$3,000	22	.....	1	.....	1
.....	.....	.....	.....	.....	2,500	14	.....	13	11	4
.....	.....	.....	.....	.....	2,400	7	22-4	21	1	1
1	11	.....	.....	31+	2,300	11	.....	11	1	1
1	11	.....	.....	17+	2,100	.....	.....	.....	.....	.....
2	.....	2	.....	31	2,000	1	.....	31	.....	.....
15	14	1	44-15	31	1,850	10	12-8	4	4	4
1	1	.....	.....	7	1,750	.....	.....	.....	.....	.....
3	1	2	16-10	11	1,650	8.5	16-5	1	3	4
1	.....	1	.....	2	1,550	4	5-1	2	3	5
2	2	.....	4-2	3	1,450	4.5	6-3	.....	2	2
1	1	.....	.....	1	1,400	2	.....	.....	1	1
.....	.....	.....	.....	.....	1,350	1	.....	2	.....	2
1	1	.....	.....	31+	1,250	.....	.....	.....	.....	.....
28	22	6	.....	.....	.....	.....	.....	11	15	26

## HOWARD HIGH SCHOOL.

2	1	1	23-13	18	2,430	8	.....	1	.....	1
2	.....	2	27-15	21	2,000	.....	.....	.....	.....	.....
1	1	.....	.....	6	1,850	9.5	12-5	.....	4	4
.....	.....	.....	.....	.....	1,350	.....	.....	.....	1	1
.....	.....	.....	.....	.....	1,100	5	.....	.....	.....	.....
5	2	3	.....	.....	.....	.....	.....	1	5	6

<sup>1</sup> Heads of departments.<sup>2</sup> Science and athletic coach.<sup>3</sup> Smith-Hughes cooperative and manual training teacher.<sup>4</sup> Principal.<sup>5</sup> Domestic science teacher.

+ Acting principal and head of history department.

TABLE 10.—*Number of recitation sections enrolling the various numbers of pupils indicated, distributed by departments.*  
WILMINGTON HIGH SCHOOL.

Departments.	Number of pupils in sections.									Total.
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 or more.	
Number of sections in—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
English.....	.....	.....	5	10	10	17	5	.....	.....	47
Mathematics.....	.....	1	6	6	12	12	9	.....	.....	46
Latin.....	.....	.....	3	3	13	7	2	.....	.....	28
Modern language.....	.....	.....	5	4	10	2	1	.....	.....	22
History and civics.....	.....	.....	2	2	5	9	4	1	.....	23
Science.....	.....	1	3	5	9	5	5	.....	.....	28
Commerce.....	1	3	10	3	6	9	1	.....	.....	33
Household arts.....	.....	4	4	11	8	.....	.....	.....	.....	27
Manual training, drawing, gymnasium.....	.....	1	4	8	5	11	5	1	3	38
Total, all departments.....	1	10	42	52	78	72	32	2	3	292
Per cent of all classes.....	0.3	3.4	14.4	17.8	26.7	24.6	10.9	0.7	1.0	100.0

## HOWARD HIGH SCHOOL.

Total, all departments.....	18	15	17	4	.....	5	.....	.....	.....	59
Per cent of all classes.....	30.5	25.4	28.8	6.8	.....	8.5	.....	.....	.....	100.0





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# MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS.

Compiled by the Library Division, Bureau of Education.

CONTENTS.—Proceedings of associations—Educational history and biography—Current educational conditions—Educational theory and practice—Educational psychology; Child study—Educational tests and measurements—Special methods of instruction—Special subjects of curriculum—Kindergarten and primary school—Rural education—Secondary education—Teachers' salaries and professional status—Higher education—School administration—School management—School hygiene and sanitation—Sex hygiene—Physical training—Play and recreation—Social aspects of education—Child welfare—Moral and religious education—Manual and vocational training—Vocational guidance—Home economics—Professional education—Civic education—Americanization—Education of soldiers—Education of women—Negro education—Education of deaf—Exceptional children—Education extension—Libraries and reading—Bureau of education: Recent publications.

## NOTE.

The record comprises a general survey in bibliographic form of current educational literature, domestic and foreign, received during the monthly period preceding the date of publication of each issue.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

## PROCEEDINGS OF ASSOCIATIONS.

1. **Associated Harvard clubs.** Report of the proceedings at the twenty-second annual meeting. Washington, D. C., April 30–May 1, 1920. 45 p. 8°. (Supplement to the Harvard alumni bulletin, vol. 23, no. 14, January 6, 1921)
2. **Louisiana.** Conference of state and parish school officials. Notes on the proceedings of conference held in New Orleans, La., December 16–18, 1920. Baton Rouge, State department of education, 1920. 11 p. 8°.  
A statement of some of the important facts which were disclosed in the discussions, and some of the essentials in instruction and administration that were agreed upon.
3. **Pennsylvania. University. Schoolmen's week.** Seventh annual proceedings, April 8–10, 1920. Philadelphia, Pa., Pub. by the University, 1920. 336 p. 8°.

Contains: 1. R. M. Haig: Available sources of additional support for Pennsylvania schools, p. 20–29. 2. W. B. Owen: How to organize a state education association of a democratic basis, p. 37–41. 3. T. E. Finegan: The future of education in Pennsylvania, p. 44–56. 4. J. W. Sweeney: Transportation to the rural consolidated school, p. 59–62. 5. L. J. Russell: Tentative standards for rural courses of study, p. 63–66. 6. E. M. Rapp: Suggestive standards and specifications of the consolidated plant, p. 66–70. 7. L. A. King: Preparation and certification of rural teachers—the situation in Pennsylvania, p. 78–93. 8.

Carter Alexander: The county training schools of Wisconsin, p. 93-98. 9. Mabel Carney: Should rural teachers be prepared in high schools? p. 99-106; Discussion, p. 106-10. 10. H. Updegraff and L. A. King: Third annual report of the Bureau of educational measurements, p. 110-37. 11. H. O. Deltrick: General intelligence and school organization, p. 137-43. 12. B. F. L. Rosenberry: A correlation of comprehension scores derived from the Monroe silent reading tests and teachers' grades, p. 143-46; Discussion, p. 146-48. 13. O. P. Cornman: The educational emergency in Pennsylvania—the need for a campaign, p. 148-56. 14. A. J. Glennie: How an educational campaign was organized and conducted in New Jersey, p. 156-63. 15. Carter Alexander: How to organize a publicity campaign for better school support, p. 163-66. 16. How can civic, social and commercial agencies help in an educational campaign in Pennsylvania? p. 167-73. 17. Carter Alexander: How to "put over" the publicity campaign for better school support, p. 173-78. 18. C. H. Carback: Certain facts regarding salaries in Pennsylvania, p. 181-88. 19. E. S. Evenden: Essential features of a state salary law, p. 188-96; Discussion, p. 196-200. 20. Harlan Updegraff: What are the desirable features of a state certificate law? p. 200-205. 21. G. C. L. Riemer: The present situation of the high schools of Pennsylvania, p. 217-234. 22. A. D. Yocum: Constants essential to democratic courses of study, p. 238-52. 23. W. D. Lewis: Constants and electives in the high school course, p. 253-57. 24. G. R. Tyson: Results of intelligence examinations held in the colleges and high schools, p. 262-70. 25. H. J. Roddy: The correlation of high school and college teaching of biology, p. 272-78. 26. F. M. Leavitt: Vocational guidance and placement, p. 278-83. 27. J. A. Lester: Some facts and fictions about school spelling, p. 291-98. 28. W. C. Ash: Standardization of mechanic arts in the high schools, p. 311-17.

#### EDUCATIONAL HISTORY AND BIOGRAPHY.

4. **Aurner, Clarence Ray.** History of education in Iowa. Vol. 5. Iowa City, State historical society of Iowa, 1920. x, 371 p. 8°.

This volume includes brief accounts of the history of five types of state educational or semieducational institutions in Iowa: the College for the blind, the School for the deaf, the Soldiers' orphans' home, the Reform schools, and the Institution for the feeble-minded.

5. **Cajori, Florian.** Greek philosophers on the disciplinary value of mathematics. Mathematics teacher, 13: 57-62, December 1920.
6. **India.** Bureau of education. . . . Selections from educational records. Part I. 1781-1839. Calcutta, Superintendent government printing, 1920. 225 p. plates. 4°.
7. **Powers, Samuel Ralph.** A history of the teaching of chemistry in the secondary schools of the United States previous to 1850. Minneapolis, University of Minnesota, 1920. 68 p. 8°. (Research publications of the University of Minnesota. Current problems, no. 13)

Bibliography: p. 63-61.

8. **Wells, Herbert G.** The outline of history; being a plain history of life and mankind. Written with the advice and editorial help of Ernest Baker, Sir H. H. Johnston, Sir E. Ray Lankester, and Prof. Gilbert Murray, and illustrated by J. F. Horrabin. New York, The Macmillan company, 1920. 2 v. illus., maps. 8°.

Mr. Wells' Outline contains much material on the development of human culture and of education from the earliest times to the present. His announced purpose is to make plain in his history that "human progress is largely mental progress—a clearing and an enlargement of ideas."

9. **Winston, George Tayloe.** A builder of the new South; being the story of the life work of Daniel Augustus Tompkins. Garden City, New York, Doubleday, Page & company, 1920. x, 403 p. front. (port.) 8°.

Mr. Tompkins (1851-1914) is known as the "father of the cotton seed oil industry," the man who turned a waste product into a national resource. Chapters 11 and 12 of the biography deal with his work as a promoter of industrial and technical education in the South, and as a builder of textile schools.

10. **Wright, Thomas Goddard.** Literary culture in early New England, 1620-1730. Edited by his wife. New Haven, Yale university press, 1920. 322 p. 8°.

Attempts to determine the culture of the people of early New England and to study the relation between their culture and the literature which they produced. In carrying out the plan of the book, the writer has made a study of the education of the New Englanders, their libraries, their ability to obtain books, their use and appreciation of books, their relations with political and literary life in England, and their literature.

## CURRENT EDUCATIONAL CONDITIONS.

### GENERAL AND UNITED STATES.

11. **Aikin, Wilford M.** International relations in education. School and society, 13: 61-67, January 15, 1921.

The possibilities of secondary education in the field of international relations.

12. **Bagley, William C.** Are the older "school virtues" obsolescent? Educational review, 61: 6-10, January 1921.

A plea for the older school virtues, especially that of thoroughness, which the writer says has been relegated to the background by the emphasis placed on the ideal of initiative.

13. **Claxton, Philander P.** Don't you care whether school keeps or not? Independent, 105: 84-85, January 22, 1921.

Discusses shortage of teachers; expenditures for education, etc.

14. **Dolch, Edward William, jr.** The education of the community. Educational administration and supervision, 6: 512-16, December 1920.

Suggests ways in which the superintendent can educate the community to fuller understanding and support of the public schools.

15. **Duggan, Stephen P.** Schools of today in the old world and the new. American education, 24: 156-60, December 1920.

Address delivered at the University convocation, Albany, October 7, 1920. The educational reforms prompted by the war both in Europe and America.

16. **Mims, Edwin.** The new challenge to teachers of America. High school journal, 3: 227-31, December 1920.

Address before the North Carolina teachers' assembly, Asheville, November 25, 1920.

17. **Reynolds, Ernest Shaw.** Democracy in education. American teacher, 9: 178-81, November 1920.

Also in School and society, 13: 24-27, January 1, 1921.

A report made at the meeting of the North Dakota state teachers' association at Grand Forks, North Dakota, before the section of higher and professional education.

18. **Richardson, Jacob W.** Educational ideals and Americanism. Harvard graduates' magazine, 29: 177-82, December 1920.

19. **Smith, W. C.** The community and the teacher. Training school quarterly, 2: 1-8, October, November, December 1920.

Address delivered before the North Carolina parent-teacher association.

What the community entrusts to its teachers, what it expects and requires of them, and what it owes them.

20. **Southington, Conn. School board.** Annual report . . . 1920. [Southington, Conn., 1920] 69 p. 12°. illus.

Part 1 deals with a health survey of the schools, part 2 is the report of the superintendent, containing information concerning the use of educational tests in the schools, part 3 gives the report of the finance committee.

21. **Strayer, George D.** Making good the promise of democracy. Good house keeping, 72: 28-29, 115, February 1921.  
An equal opportunity for all and the Smith-Towner bill.
22. **Utah educational campaign committee.** Utah's educational program. Girls and boys her greatest asset; education her biggest business. [Salt Lake City, Department of public instruction, 1920?] 34 p. illus. 8".  
An appeal to the people of Utah to assist in carrying out the program provided by the new school laws of the State. Illustrated with many charts.
23. **Williams, James T., jr.** The press and the public schools. Journal of education, 92: 595-97, December 16, 1920.  
Paper read at the Massachusetts teachers' association.  
Says the press has a deep obligation to the public schools, but in return for that support the people have a right to expect certain things. Most of the article is given to discussing the things we have a right to expect from the schools.
24. **Wisconsin's educational horizon**, vol. 3, no. 3, pts. 1-3, November-December 1920.  
Pt. 1.—The State board of education, an agency of cooperation and coordination, 1920-1921, 28 p.—Pt. 2.—The first year of Wisconsin's educational bonus law, 1919-1920, 58 p.—Pt. 3.—Wisconsin looking forward, an educational program, 15 p.

## FOREIGN COUNTRIES.

25. **De Haas, J. Anton.** The intellectual blockade of Germany. Nation, 112: 38-39, January 12, 1921.  
Discusses the plight of the German and Austrian universities, owing to the enormous increase in the cost of materials, equipment, and the necessities of life.
26. **Das gymnasium und die neue zeit.** Fürsprachen und forderungen für seine erhaltung und seine zukunft. Leipzig und Berlin, B. G. Teubner, 1919. 220 p. 8".
27. **India. Commission of inquiry.** Village education in India. The report of a commission of inquiry. London, New York, Oxford university press, 1920. xii, 210 p. 16".  
Members of the Commission: A. G. Fraser, Miss M. M. Allan, J. H. Maclean, K. T. Paul, D. J. Fleming.
28. **Iyer, P. A. S.** The Madras elementary education act. Indian review (Madras, India) 21: 692-94, November 1920.
29. **Wiggin, Anne.** Education for nationalism: an example. School and home education, 40: 89-92, December 1920.  
The education of children in France before the war and how it served her in time of war.

## EDUCATIONAL THEORY AND PRACTICE.

30. **Bamberger, Florence E.** Progressive education in public schools. Educational review, 61: 19-30, January 1921.  
Discusses the meaning of "progressive education." Gives results of tests made in the public schools of Baltimore regarding the health of pupils, recreational facilities, etc. Outlines the curriculum of progressive education.
31. **Cobb, Stanwood.** The essence of progressive education. Educational review, 61: 1-5, January 1921.  
"Progressive education" is an effort to give more freedom and more responsibility to the pupils. The writer declares it to be "a daring experiment." It is best seen in the different progressive schools, such as the Organic school of Fairhope, Alabama; the Park school, Baltimore, Md.; and the Moraine Park school, Dayton, Ohio. The object of the progressive school is to arouse interest in the acquisition of knowledge, and provide opportunity for physical movement and exercise. One of its tenets is the use of movable furniture; another is easy access to the out-of-doors.

32. **Cuff, Sister Mary Louise.** The limitations of the educational theory of John Locke especially for the Christian teacher. Washington, D. C., 1920. 148 p. 8°.

Bibliography: p. 146-48.

A dissertation submitted to the Catholic sisters college of the Catholic university of America in partial fulfillment of the requirements for the degree doctor of philosophy.

33. **Hobson, Elsie G.** The progressive private school. Educational review, 61: 31-40, January 1921.

Says that the progressive schools are essentially experimental. Their program is flexible, and they are not afraid to scrap a scheme if it proves unprofitable or to try a new one that promises well.

34. **Morrison, Henry C.** Studies in high-school procedure—direct and indirect teaching. School review, 29: 19-30, January 1921.

Says that learning is positive and effective in proportion as it is direct classroom work with no assignment of lessons, except assimilative material, and no intervention of inhibitory learning about the ability to be required. Gives examples in the teaching of Latin and French.

35. **Roos, Eleanor W.** Educational ideas in some English novels. Journal of experimental pedagogy, 5: 279-88, December 6, 1920.

Second and concluding paper on the subject. Educational ideas in novels by Dickens, George Eliot, Hughes, Hardy, Meredith, Wells, etc.

36. **Smith, Eugene B.** An interesting educational experiment. Educational review, 61: 11-18, January 1921.

Discusses the work and methods of the Park school of Baltimore, Md.

### EDUCATIONAL PSYCHOLOGY; CHILD STUDY.

37. **Drummond, Margaret.** Five years old or thereabouts; some chapters on the psychology and training of little children. London, Edward Arnold, 1920. 180 p. front. 12°.

"List of other works": p. 178.

38. **Fryer, Eugenie M.** A book of boyhoods: Chaucer to MacDowell. New York, E. P. Dutton & company [1920] x, 302, p. front. 8°.

The author believes that in modern education too little attention is paid to the imagination. In this book of boyhoods, covering in time six centuries, and depicting a variety of professional types, it is found in each instance that the well-spring of vision has the same source—imagination.

39. **Henderson, Gertrude M.** Educating the child's imagination. Education, 41: 303-11, January 1921.

Says that too early an introduction to the world of books tends to crush out the original spirit in children.

40. **Mitchell, David.** Child psychology. Psychological bulletin, 17: 363-74, November 1920.

A review of recent works on the psychology of childhood. Gives references.

41. **Rasmussen, Vilhelm.** Child psychology. I. Development in the first four years. With a preface by Prof. Harald Høffding. London, [etc.] Gyldendal [1920] xv, 166 p. plates. 12°.

"Literature": p. 165-166.

Translated from the Danish by G. G. Berry.

42. **Strange, A. C.** [Individual differences] Oregon teachers monthly, 25: 118-21, 173-76, November, December 1920.

The first article is entitled "The problem of individual differences" and the second "Causes of individual differences."

43. **Tracy, Frederick.** The psychology of adolescence. New York, The Macmillan company, 1920. 24 p. 8°.

## EDUCATIONAL TESTS AND MEASUREMENTS.

44. Ballard, Philip Boswood. *Mental tests*. London, New York [etc.] Hodde and Stoughton, ltd., 1920. ix, 235 p. 12°.

Describes the attempts made in England, America, and elsewhere to arrive at a scientific system of testing intelligence, reasoning, and the results of teaching.

45. Barthelmess, Harriet M. *Geography testing in Boston*. *Journal of educational research*, 2: 701-12, November 1920.

46. Bird, Grace E. *A test of some standard tests*. *Journal of educational psychology*, 11: 275-83, May-June 1920.

"Records were secured from sixty pupils in thirteen standard educational tests, and on the basis of the results a study is made of the diagnostic value of each of the tests. Those involving the most language ability were the most reliable indices of general school ability gauged by general success in the entire group of tests, by teachers' estimates, and by school marks."

47. Brooks, Samuel S. *Using standardized tests in rural schools for grading purposes*. *Journal of educational research*, 2: 729-35, November 1920.

This is the third article by Supt. Brooks on the general topic, "Putting standardized tests to practical use in rural schools."

48. Chamberlain, E. M. *The psychological testing of intelligence*. *In Eastern association of physics teachers*. Report, 1920. p. 7-15.

Tests for general intelligence. Discusses the scales themselves and the uses of intelligence ratings.

49. Clement, J. A. *Use of mental tests as a supplementary method of making school adjustments in colleges*. *Educational administration and supervision*, 6: 433-44, November 1920.

50. Coxe, W. W. *Value of intelligence tests in the assignment and promotion of pupils—results of group intelligence tests in the Cincinnati schools*. *School index*, 7: 136-37, January 7, 1921.

Report presented before the Cincinnati schoolmasters club, December 11, 1920.

51. Flemming, Edwin G. *A study of silent reading in classes in speech*. *Quarterly journal of speech education*, 6: 31-51, November 1920.

Study based on test in the department of public speaking at the University of Wisconsin. The reading test was the Thorndike scale alpha 2.

52. Freeman, Frank N. *The interpretation and application of the intelligence quotient*. *Journal of educational psychology*, 12: 3-13, January 1921.

Discusses the relationship between the intelligence quotient as a measure of the mental capacity of the individual and the facts of mental development.

53. ———. *Mental tests*. *Psychological bulletin*, 17: 353-62, November 1920.

Discusses the Army tests, also new tests or new forms of old tests. Gives an extensive bibliography.

54. Holley, Charles E. *Mental tests for school use*. Urbana, Pub. by University of Illinois, 1920. 91 p. 8°. (*University of Illinois bulletin*, vol. 17, no. 28, March 3, 1920. Bureau of educational research—bulletin no. 4.

Pt. I.—The present status of mental testing. Pt. II.—Comparison of group mental scales. Pt. III.—Mental survey of the Champaign public schools.—Appendix.

55. Pillsbury, W. B. *Selection—An unnoticed function of education*. *Scientific monthly*, 12: 62-74, January 1921.

Discusses the value of mental tests as compared with selection; the difference between the slow process of the school system of selection, and modern mental measurements to determine the ability of pupils. Shows advantages of both.

56. **Pintner, Rudolf, and Marshall, Helen.** A combined mental-educational survey. *Journal of educational psychology*, 12: 32-43, January 1921.

Suggestions for the combination of mental and educational tests in order that we may measure accurately the wastage of intelligence.

57. ——— and **Noble, Helen.** The classification of school children according to mental age. *Journal of educational research*, 2: 713-28, November 1920.

The writer says that the experiment of classifying children according to mental age has shown that such a classification is thoroughly practicable and will eliminate a great deal of the present-day waste and inefficiency in the ordinary school system.

58. **Pressey, L. C., and Skeel, H. V.** A group test for measuring reading vocabulary in the first grade. *Elementary school journal*, 21: 304-9, December 1920.

Discusses results obtained by the Haggerty visual vocabulary test.

59. **Pressey, Sydney L.** Suggestions looking toward a fundamental revision of current statistical procedure, as applied to tests. *Psychological review*, 27: 466-72, November 1920.

Discusses certain limitations to the present concepts of "reliability" and "validity" as applied to intelligence tests.

60. **Thorndike, Edward L.** The reliability and significance of tests of intelligence. *Journal of educational psychology*, 11: 284-87, May-June 1920.

"The probable error of a twenty-minute group test of the Army Alpha type is about one year of mental age. This is about what is to be expected since the probable error of a Stanford-Binet score, representing a fifty-minute examination, is about five months of mental age."

61. **Van Wagenen, Marvin J.** Graded opposites and analogies tests. *Journal of educational psychology*, 11: 241-63, May-June 1920.

"Three hundred opposites and 300 analogies were given to elementary school pupils and to college students. On the basis of the results four equated sets of fifty each were constructed for both opposites and analogies. The article presents the lists and the keys for scoring."

62. ——— Table for computing mean individual scores in educational scales. *Teachers college record*, 21: 441-51, November 1920.

63. **Webb, L. W.** A comparison of two methods of studying with application to foreign language. *School review*, 29: 58-67, January 1921.

An effort to determine the relative value of two methods of studying paired associates, which the writer defines as "two tests of words, one opposite the other." The subjects in the experiment were students in the psychology classes of Northwestern university.

64. **Wilson, G. M.** Locating the language errors of children. *Elementary school journal*, 21: 290-96, December 1920.

Discussion of the most common errors of pupils as shown by tests made in the public schools of Boise, Connersville, Kansas City, and Cincinnati.

65. **Yates, Dorothy Hazeltine.** A study of twenty high school seniors of superior intelligence. *Journal of educational psychology*, 11: 264-74, May-June 1920.

"Five hundred and forty-three high school seniors of Oakland, California, were given the Otis tests of intelligence, and of the twenty that ranked highest (score 149-165) an intensive study was made with reference to kind of home, intelligence of parents, health, and general ability. A comparison is made between these twenty superior pupils and twenty selected from about the median."

**SPECIAL METHODS OF INSTRUCTION.****PROJECT METHOD.**

66. Hatch, R. W. Teaching modern history by the project method. An experiment. Teachers college record, 21: 452-69, November 1920.

An experiment in history teaching that has been tried out at the Horace Mann School for Girls for the past year. It is a course in modern European history, and the class is in the last year of the Junior High School.

67. Wilgus, A. C. The laboratory method in the teaching and studying of history. Historical outlook, 12: 23-27, January 1921.

What the laboratory system in history is, how it operates, and the advantages of the system.

**VISUAL INSTRUCTION.**

68. Confessions of a movie educator. Independent, 104: 424-25, 447, December 25, 1920.

Work of the educational department of a film manufacturing concern. Illustrated.

69. Grossmann, Maximilian P. E. Visual education and child psychology. Educational film magazine, 5: 6-7, January 1921.

The child's reactions to various types of motion picture stimuli. Speaks of the need for careful selection and production of films for children.

**SPECIAL SUBJECTS OF CURRICULUM.****READING.**

70. Lewis, William Dodge and Rowland, Albert Lindsay. Silent reading. Kansas teacher, 12: 12-13, 15, January 1921.

Also in Arkansas Teacher, 8: 6-9, December 1920.

71. Pressey, L. W. and S. L. A critical study of the concept of silent reading ability. Journal of educational psychology, 12: 25-31, January 1921.

Discusses the problem of whether the form or the content of the matter read is an important factor in silent reading.

72. Waldman, Bessie. Definite improvement of reading ability in a fourth-grade class. Elementary school journal, 21: 273-80, December 1920.

Study made as a part of class work in a course entitled "Special problems in teaching," given at the University of Cincinnati. Writer says that in her fourth-grade class, the subject of reading caused more trouble than any other in the curriculum. Discusses methods of accelerating the rate of reading and of increasing the number of ideas retained.

**ENGLISH AND COMPOSITION.**

73. Backus, Bertie. Solving the problem of the failure in English. English journal, 9: 579-83, December 1920.

74. Green, Jenny Lind. An English project motivated by history. English journal, 9: 557-69, December 1920.

Considers the construction and presentation of a play as an English project.

75. Inland empire council of teachers of English. Minimum requirements in the mechanics of English composition. For use in the high schools of the Inland empire. 2d ed., rev. and enl. Missoula, Mont., Inter-mountain educator, 1920. 44 p. 8°.



## LITERATURE.

76. **Bamesberger, Velda C.** Standard requirements for memorizing literary material. Urbana, University of Illinois, 1920. 93 p. 8°. (University of Illinois bulletin, vol. 17, no. 26, February 23, 1920. Bureau of educational research—Bulletin no. 3)

77. **Chamberlain, Essie.** Literary attitudes and reactions of boys and girls. Illinois association of teachers of English bulletin, 13:1-15, January 1, 1921.

The results of a study made to ascertain the differences in reactions in English classes where boys and girls recite separately, and the results of a study of the reading interests and literary attitudes of 1,000 students in the Oak Park High School.

## ANCIENT CLASSICS.

78. **Arms, S. Dwight.** The outlook for Latin. Educational review, 61:41-53, January 1921.

Discusses the present status of the various foreign languages in the secondary schools of New York state, and the outlook for Latin. Says that the position of Latin in the curriculum is encouraging.

79. **Findley, Edwin L.** High school Latin and some modern conditions. Classical journal, 16: 142-48, December 1920.

80. **Lodge, Gonzalez.** A reasonable plea for the classics. Teachers college record, 21: 413-31, November 1920.

An address delivered at a meeting of the Maryland state teachers association, Ocean City, June 29, 1920.

A plea for the classics in the high-school curriculum. Suggests the most important points in which classical teaching seems to be valuable.

81. **Oldfather, W. A.** Latin as an international language. Classical journal, 16: 195-206, January 1921.

Discusses the movement to make Latin an international language. The question became a practical one at the meeting of the International research council, in Brussels, September 18-28, 1919, when a committee was appointed to investigate and report on the present status and possible outlook of the general problem of an international auxiliary language.

82. **Perkins, Albert S.** Latin training for business. Classical journal, 16: 165-70, December 1920.

A plea for a wider study of Latin in the secondary school. Discusses the practical value of Latin as a medium for building up an extensive English vocabulary.

83. **Reynolds, A. B.** Economy in first-year Latin work. Classical journal, 16: 132-41, December 1920.

Says that the successful reading of Caesar is a better preparation for Cicero or Vergil than any first book can be. Methods of teaching Latin in the high school of San Rafael, Calif.

84. **Rice, Edith F.** Latin plays for schools. Classical journal, 16: 149-56, December 1920.

Discusses the advantages of the classics, and the popularizing of Latin through the medium of Latin plays. Gives a list of suitable plays for high school students.

## MODERN LANGUAGES.

85. **Henry, Frederick S.** Attainable aim in modern language teaching in the preparatory schools. Modern language journal, 5: 121-28, December 1920.

Read before the New York state modern language association.

**MATHEMATICS.**

86. **Breslich, E. R.** The teaching of mathematics in the junior high school. *School review*, 29: 38-48, January 1921.

Gives an outline of the seventh-grade course in one of the experimental classes of the junior high school at the University of Chicago.

87. **Cajori, Florian.** Minimum high school mathematics. *School science and mathematics*, 21: 25-28, January 1921.

88. **Kelly, F. J.** The results of three types of drill on the fundamentals of arithmetic. *Journal of educational research*, 2: 683-700, November 1920.

An address delivered before the National association of directors of educational research at Cleveland, Ohio, February 26, 1920.

89. **Mason, Thomas E.** High school and college mathematics. *School science and mathematics*, 21: 37-44, January 1921.

Read before the mathematics section of the Indiana state teachers' association, 1920.

90. **Thorndike, Edward L.** The constitution of arithmetical abilities. *Journal of educational psychology*, 12: 14-24, January 1921.

**SCIENCE.**

91. **Davis, Bradley M.** The problem of the introductory course in botany. *Science*, n. s., 52: 597-99, December 24, 1920.

Study based on replies to a questionnaire sent to a number of botanists in the United States and Canada requesting outlines of what they would plan as the best type of introductory course in botany.

92. **Finley, Charles W.** Some studies of children's interests in science materials. *School science and mathematics*, 21: 1-24, January 1921.

Results of a study made to ascertain the nature of (1) Children's interest in animals, and (2) Pupils' interest in plants, animals, and physical phenomena.

93. **Goddard, H. N.** General science in the junior high school. *School science and mathematics*, 21: 52-60, January 1921.

**GEOGRAPHY.**

94. **Branom, Fred K.** What the business world demands of geography. *School science and mathematics*, 21: 55-72, January 1921.

Read at the November meeting of the Central association of science and mathematics teachers, Chicago, Ill.

95. **Winchester, Lily.** The teaching of geography to children. With a preface by Percy M. Roxby. London, Methuen & co., ltd. [1920] 50 p. 12°.

**HISTORY.**

96. **Barr, A. S.** An analysis of the larger mental processes involved in the study of elementary school history. *Educator-journal*, 21: 263-68, January 1921.

97. **Hasluck, Eugene Lewis.** The teaching of history. Cambridge, The University press, 1920. 4 p. l., 119 [2] p. 12°. (Cambridge handbooks for teachers. General editor, J. W. Adamson.)

98. **Linke, Karl.** Der erzählende geschichtsunterricht. Zweite verbesserte auflage. Braunschweig, Hamburg, Georg Westermann, 1920. 136 p. 8°.

99. **Madeley, Helen M.** History as a school of citizenship. With a foreword by The Master of Balliol. London, New York, [etc.] Oxford University, 1920. 106 p. illus. 12°.

100. **Mecker, H. H.** History instruction in elementary schools: basis for selecting the content and method of presentation. *Education*, 41: 293-97, January 1921.

Says that history instruction should begin early in the life of the elementary school pupil, with stress laid on the conditions which surround him. Writer contends that history teaching deals too much with political and too little with social and industrial material.

#### CURRENT EVENTS.

101. **Speare, Morris Edmund and Norris, Walter Blake, ed.** Vital forces in current events. Readings on present-day affairs from contemporary leaders and thinkers. Boston, New York [etc.] Ginn and company [1920] vii, 284 p. 12<sup>s</sup>.

This volume presents contemporary problems and ideals, national and international, as they are seen by men of light and leading today. The articles included have been carefully chosen with regard to their English style. The increasing recognition of the value of readings in current events in school and college causes an immediate need for a book of this sort.

#### MUSIC.

102. **Scholes, Percy A.** 'Musical appreciation' in schools; why—and how? Comprising a brief general discussion of the subject and a teacher's companion to 'The book of the great musicians.' With an introduction by Sir Hugh P. Allen. London, New York [etc.] Oxford University press, 1920. 41 p. 12<sup>s</sup>.

#### ART.

103. **Whitford, William G.** Curriculum-building in art. *Elementary school journal*, 21: 281-89, 352-60, December 1920, January 1921.

"Method of determining more definite and concise terminology and objectives for use in planning a course of study in art for the public school." Conspectus of course of study in art.

104. **Wilson, Francesca M.** Professor Čížek takes his class. An authoritative account of an actual lesson given recently. *Teacher's world*, 24: 393, 395, December 1, 1920.

A sensation in educational circles in England has been created recently by an exhibition of children's woodcuts, paintings, etc. The inspirer of this wonderful work is Professor Čížek, Principal of the Vienna school of arts and crafts. An account of his work is given in this article.

#### KINDERGARTEN AND PRIMARY SCHOOL.

105. **Ezekiels, Jeannette.** The kindergarten makes adequate provision for the child's physical development. *Kindergarten and first grade*, 6: 10-14, January 1921.

Address given before the Kindergarten department, National education association, Salt Lake City.

The kindergarten, its health work with parents, its oversight of the children's physical development, and the social aspect and emphasis of its program.

106. **Smith, William Alexander.** An experiment in purposeful activities in a first grade. *Kindergarten and first grade*, 6: 24-26, January 1921.

An experiment tried in the Broadway school, Hackensack, N. J.

#### RURAL EDUCATION.

107. **Hoffman, U. J.** Health, comfort, welfare in one-room schools. *School news*, 34: 257-59, January 1921. illus.

A discussion of school desks and proper schoolroom seating.

108. **King, Charles A.** Hand work in the rural school. *Education*, 41: 320-24, January 1921.

## SECONDARY EDUCATION.

109. **Florida. University. Teachers college. Department of secondary education.** Proceedings of the High school conference of April 15, 16, and 17, 1920. Gainesville, Fla., University of Florida, 1921. 52 p. 8° (University record, vol. 16, no. 1, February 1921)

Contains: 1. W. D. Wilson: Physical fitness as an objective in high school education, p. 7-11. 2. A. H. Fillers: The sciences in our high school—subject matter, equipment, methods and the preparation of teachers, p. 11-19. 3. C. S. Ogilvie: Extra-classroom activities in high school, p. 19-23. 4. S. A. Draper: Proper vocational guidance for Florida high schools, p. 23-30. 5. J. M. Feagle: Vocational guidance for Florida high schools, p. 30-35. 6. L. R. Sims: English in the high school, p. 36-41. 7. G. V. Fugitt: Supervision by the high school principal, p. 42-51.

110. **Briggs, Thomas H.** Comparative results in intermediate and elementary schools at Los Angeles. *Journal of educational research*, 2: 681-92, November 1920.

The problems considered in this study are (1) To what extent do junior high-school pupils persist in school and (2) To what extent are secondary-education electives economically offered in the intermediate school.

111. **Gosling, Thomas Warrington.** The split-unit program in high schools. *Journal of educational research*, 2: 736-40, November 1920.

An address before the Southern Wisconsin teachers' association, Madison, March 26, 1920.

112. **Kirkpatrick, Lee.** Factors which control curriculum making in junior high school. *Southern school journal*, 32: 20-23, January 1921; 9-12, February 1921.

113. **New England association of colleges and secondary schools.** Standards for secondary schools. *School and society*, 12: 620-23, December 18, 1920.

Report of the committee presented at the annual meeting, December 4, 1920.

Recommendations for a standard secondary school are given under the following headings: Purpose of the school, Instruction, Program of studies, Qualifications of teachers, Organization and administration, Equipment, and Plan.

114. **Tripp, B. Ashburton.** A model high school group for a residential suburb. *American city*, 24: 39-40, January 1921.

School located at Shaker heights village, a suburb of Cleveland, Ohio.

## TEACHERS' SALARIES AND PROFESSIONAL STATUS.

115. **Beeson, M. F.** Certification of teachers by means of mental and standard educational tests. *Educational administration and supervision*, 6: 471-75, November 1920.

Recommends some tests for use in the certification of teachers.

116. **Berg, David E.** Personality culture by college faculties. New York city, Institute for public service [1920] 127 p. tables. 12°.

Based on a study of 72 university instructors at work with 100 classes in 25 subjects. The author spent a summer session in visiting the classes, and describes each teacher as seen from the viewpoint of the students. He urges every college to organize a committee to study teaching personality and efficiency.

117. **Dodd, E. E.** Well-to-do teachers. *Industrial-arts magazine*, 10: 22-23, January 1921.

The permanent material welfare of teachers. Their ability to save and invest.

118. **Goodlet, Emily.** Graded exercises for practical teaching in history. *Educational administration and supervision*, 6: 517-25, December 1920.

Bibliography: p. 525.

119. **Graves, Louis.** Needed: two hundred thousand trained teachers a year. *World's work*, 41: 309-12, January 1921.

Discusses the teacher shortage in a popular way. Illustrated with graphs showing inadequate salaries paid to teachers.

120. **Gray, William S.** Rating scales, self-analysis, and the improvement of teaching. *School review*, 29: 49-57, January 1921.

Discusses the advantages of the rating scale devised by Dr. Rugg, which was presented in the "Elementary school journal," May, 1920; also the supervisory plan organized by E. A. Turner, at the Illinois state normal university.

121. **MacCracken, Henry N.** *Religio magistri*. *Atlantic monthly*, 127: 76-84, January 1921.

Discusses the qualifications of the teacher. Emphasizes the faith of the teacher in his profession.

122. **Massachusetts.** Special commission on teachers' salaries. Report . . . 1920. Boston, Wright & Potter printing co., state printers, 1920. 159 p. 8°.

Salaries and qualifications of teachers in Massachusetts, salary schedules for certain cities and towns, length of service, etc.

123. **Morton, Robert L.** The examination method of licensing teachers. *Educational administration and supervision*, 6: 421-32, November 1920.

124. **Mudge, E. Leigh.** Professional ethics for teachers. *School and society*, 12: 601-604, December 18, 1920.

Some suggestions concerning the teacher's attitude toward other teachers, non-professional school officers, business men, so-called superiors or inferiors, pupils, and community.

125. **Shoninger, Yetta S.** The function and responsibilities of the critic teacher. *Educational administration and supervision*, 6: 461-90, December 1920.

Says that critic work involves abilities of the highest order. The value of practice-teaching hinges upon the critic teacher; and if practice-teaching is to play its part in effective professional preparation we must have the able critic for whom we are willing to pay the price.

126. **Welborn, E. L.** Co-operation with local schools in student teaching. *Educational administration and supervision*, 6: 445-70, November 1920.

"Adjacent town and rural schools are utilized for student teaching by perhaps one-third of the two hundred ten public normal schools of the United States. This paper deals with some of the problems involved in the organization and administration of student teaching in this group of normal schools."

Bibliography: p. 468-70.

127. **Work, Monroe N.** Teachers' salaries. *Southern workman*, 50: 31-34, January 1921.

Salaries of Negro teachers.

## HIGHER EDUCATION.

128. **Capen, Samuel P.** A national survey of state universities—how should it be undertaken? *Educational record*, 2: 20-28, January 1921.

Address delivered before the National association of state universities, November 13, 1920.

129. **Coffman, Lotus D.** Recent growth of state universities creates crisis. *School life*, 5: 1-2, 10-12, December 15, 1920.

Address delivered at the inauguration of Dr. M. L. Burton as president of the University of Michigan.

Thinks the principal cause of the growth of universities is the rapid increase of high schools. The plan of limiting registration is impracticable.

130. **Daniel, Hawthorne.** Arthur E. Morgan's new type of college. *World's work*, 41: 405-409, February 1921.  
A civil engineer's revolutionary experiment with Antioch college, to produce graduates who will become employers and not employees.
131. **Fletcher, O. O.** The salvage principle in college administration. *South Carolina education*, 2: 12-13, 21-22, December 15, 1920.  
Some suggestions for retaining in college as many students as possible of those who otherwise might bring their college course to wreck.
132. **Holliday, Carl.** The arts college and the city. *School and society*, 12: 625-34, December 25, 1920.  
Address delivered at the National association of urban universities, Philadelphia, December 18, 1920.  
Some ideals and demands of the arts college in a city.
133. **Holme, E. R.** The American university; an Australian view. Sydney, Angus & Robertson, Ltd., publishers to the University, 1920. 242 p. 12".  
Professor Holme, of the University of Sydney, attached during 1918-19 to the Education service of the Australian Imperial force, made the personal investigations on which this book is based with the object of discovering how far the methods, traditions, and customs which have created in the United States a markedly distinct type of English-speaking university are either applicable to or instructive for the British type of university established in Australia. He concludes that Australia has much to learn from American universities, if little or nothing to copy.
134. **Kellogg, Vernon.** The National research council. *North American review*, 212: 754-64, December 1920.  
The organization and work of the National research council.
135. **Shaw, Wilfred B.** The University of Michigan. New York, Harcourt, Brace & Howe, 1920. 364 p. illus. 8".

### SCHOOL ADMINISTRATION.

136. **Chamberlain, Arthur H.** Urgent financial needs of California school system as related to teacher-training facilities and the office of county superintendent of schools. 11 p. 8". (Bulletin of the California teachers' association, January 1921)  
Advance reprint from *Sierra educational news*, February 1921.  
Illustrated by tables, figures and graphs.
137. Further discussion of the Smith-Towner bill. *Educational review*, 61: 54-79, January 1921.  
A symposium as follows: (1) Why the Smith-Towner bill should not become a law, by C. R. Mann, p. 54-65; (2) A reply to the arguments against the Smith-Towner bill, by G. D. Strayer, p. 65-70; (3) The Smith-Towner bill again, by Virgil G. Michel, p. 70-79.
138. **Kenyon, Elmer.** Perils in the Smith-Towner bill. *Pittsburgh school bulletin*, 14: 453, 455-57, 459-61, January 1921.

### SCHOOL MANAGEMENT.

139. **Clark, M. G.** The course of study a factor in efficient teaching. *Journal of education*, 92: 598-600, December 16, 1920.
140. **Collette, E. N.** Days to be observed by public schools with suggested programs. *Oklahoma, State superintendent of public instruction* [1920?] 106 p. illus. 8".
141. **Detroit, Mich.** Department of special education and Bureau of statistics and reference. Age-grade and nationality survey. *Detroit educational bulletin*, no. 3: 1-24, December 1920.  
Facts regarding retardation, acceleration, and nationality in the schools of Detroit, Mich.

142. **Franzen, Raymond.** The accomplishment quotient. A school mark in terms of individual capacity. Teachers college record, 21: 432-40, November 1920.

The mark which is here advocated evaluates the accomplishment of the child in terms of his own ability.

143. **Kirby, Byron.** The curriculum. Educator-Journal, 21: 203-206, December 1920.

Some suggestions for changing the course of study beginning with the sixth grade so that the school systems would provide for a gradual divergence in the courses to be followed, dependent upon the different abilities and different tastes of the children themselves.

144. **Kruse, Samuel Andrew.** The problem of school attendance. Missouri school journal, 37: 471-74, December 1920.

The fundamental causes of poor attendance.

145. **Morgan, Geoffrey F.** The public schools and the boy scout movement. Normal instructor and primary plans, 30: 22-23, 66, January 1921. illus.

Some of the principles of the scout organization that might be utilized with profit in the schools.

146. **Thurston, Ernest L.** The right school spirit. School news and practical educator, 34: 311-16, January 1921.

The importance of the right school spirit and how this spirit can be maintained.

### SCHOOL HYGIENE AND SANITATION.

147. **Averill, Lawrence Augustus.** Some hygiene projects for the upper grades. American journal of school hygiene, 4: 57-66, December 1920.

Suggests some projects in hygiene and sanitation which, attacked in a socialized way, will prove interesting and valuable to all upper grade classes.

148. **Churchill, Frank S.** Preventive medicine in its relation to schools. Boston medical and surgical journal, 183: 747-50, December 30, 1920.

Paper read at the annual meeting of the Massachusetts medical society, June 9, 1920. Urges an intensive study of under-nourished children throughout the school system.

149. **Lee, Roger I.** Preventive medicine and hygiene in relation to colleges. Boston medical and surgical journal, 183: 750-54, December 30, 1920.

Paper read at the annual meeting of the Massachusetts medical society, June 9, 1920. Gives mortality statistics of Harvard university for the last 10 years.

150. **Pelton, Garnet I.** Under par school children. Survey, 45: 573-74, January 15, 1921.

Discusses the health crusade in the public schools of Denver.

151. **Badebaugh, Mamie.** The school program from the standpoint of fatigue. Oregon teachers monthly, 25: 127-29, November 1920.

The writer says that every good program should present such an arrangement of recitations as to conform to the generally accepted laws of fatigue. Gives some suggestions for making such an arrangement.

152. **Smedley, Emma.** The school lunch; its organization and management in Philadelphia. Media, Pa., Emma Smedley [1920] xv, 164 p. incl. front., illus., diagrs. plates, fold. forms. 8°.

Bibliography: p. 151-53.

153. **Taylor, Henry L.** American posture league: its history, work and future. Modern medicine, 2: 777-79, December 1920.

Discussion of the general work of the league to increase interest in the improvement of habitual posture and to set up standards of posture training, etc., in school, and industrial life.

## SEX HYGIENE.

154. **Armentrout, W. D.** Problems of sex education. *Education*, 41: 325-27, January 1921.

Advocates sex education in the home. Emphasizes the equipping of parents with the necessary knowledge of sex hygiene, rather than the public school teachers.

155. **Galloway, T. W.** Sex instruction. *Religious education*, 16: 330-37, December 1920.

A paper read at the Religious education association convention in Pittsburgh. This is the second part of the paper. The first part dealing with the nature of the sex problem and its relation to religious education is not printed here on account of limitations of space.

## PHYSICAL TRAINING.

156. **Clark, Lydia.** Health and athletics for the high school girl. *School and home education*, 40: 84-86, December 1920.

157. **Geer, William H.** Prescribed physical training for Harvard freshmen. *Harvard graduates' magazine*, 29: 202-209, December 1920.

158. **Jessup, Elon.** A college outing club. *American review of reviews*, 63: 80-84, January 1921.

Describes the outdoor winter sports for the students at Dartmouth college. Illustrated.

159. **Roberts, E. L.** Military training in the schools. *Mind and body*, 27: 361-66, January 1921.

Address delivered at the physical education section of the National education association, Salt Lake City, July 6, 1920.

## PLAY AND RECREATION.

160. **Bigger, Frederick.** Pittsburgh's playgrounds and citizens' committee on city plan. *American city*, 24: 50-53, January 1921.

Illustrated with diagrams.

161. **Dymond, J. A. G.** Scouting and the adolescent, with special reference to secondary schools. With a foreword by Professor J. J. Findlay and a memoir by F. J. Stafford. Manchester, The University press; London, New York [etc.] Longmans Green & co., 1920. 81 p. 16°.

Bibliography: p. 79-81.

162. **Hewitt, Richard G. and Ellis, Lewis.** School camps; their value and organization. Oxford, The Clarendon press, 1920. 110 p. 16°.

163. **O'Shea, M. V.** Playgrounds—city and rural. *Normal instructor and primary plans*, 30: 16-17, 64, February 1921. illus.

## SOCIAL ASPECTS OF EDUCATION.

164. **Harding, Warren G.** A message to American mothers. *Social progress*, 5: 9, January 1921.

From the address of the president-elect of the United States delivered before the Ohio federation of the Child conservation league of America at its convention in Marion, December 15, 1920.

165. **Hewlett, William.** Parents first: an aspect of the education question. *Nineteenth century*, 89: 98-110, January 1921.

Discusses the influence of home environment. How sordid and ugly surroundings in the home may be rectified. The writer says: "Educate the parents first." Conditions in England discussed.



166. **Myers, Glenn E.** Mental health of children. *American journal of public health*, 11: 55-62, January 1921.  
Importance of proper environment in the home.
167. **Page, Frank R.** The school and the community. *Elementary school journal*, 21: 297-303, December 1920.  
Study of real life conditions by pupils, such as the industrial and commercial activities of the places where they reside.
168. **Robbins, Charles L.** The socialized recitation. Boston, New York [etc.] Allyn and Bacon [1920] viii, 100 p. 12°.  
Undertakes to show the place which the socialized recitation may have in the modern school, to emphasize its possibilities in the mastery of subject matter as well as in the cultivation of social ideals and practices on the part of the children in our schools, to present enough concrete material to make the technique clear to the teacher who wishes to use the method, to give a vivid view of the dangers to be avoided, and to show in some detail the qualities which need to be cultivated.

## CHILD WELFARE.

169. **Oberholtzer, Ellis P.** What are the "movies" making of our children? *World's work*, 41: 249-63, January 1921.  
Influence of the "movies" on boys and girls. What can be done to remove the "harmful excrescences upon this powerful agency of popular education and diversion."
170. **U. S. Children's bureau.** Eighth annual report of the chief, Children's bureau, to the Secretary of Labor. Fiscal year ended June 30, 1920. Washington, Government printing office, 1920. 45 p. 8°.

## MORAL AND RELIGIOUS EDUCATION.

171. **Briggs, Thomas E.** Can character be taught and measured? *School and society*, 12: 595-601, December 18, 1920.  
Read at the Association of colleges and preparatory schools of the Middle States and Maryland, November 26, 1920.  
Gives some suggestions for measuring character.
172. **Cowles, May K.** Week-day religious instruction in the city schools of Van Wert, Ohio. *Ohio educational monthly*, 70: 2-4, January 1921.
173. **Mudge, E. Leigh.** The psychology of the week-day religious school. *Religious education*, 15: 305-307, December 1920.  
See also article by Victor Hoag on "Week-day instruction in Batavia, Illinois" on pages 307-309.
174. **Ogle, M. B.** A neglected aspect of education. *Education*, 41: 312-19, January 1921.  
Discusses character building through the medium of literature—the spiritual message of the classics.
175. **Powell, Chilton L.** Education and religion. *Sewanee review*, 28: 558-72, October-November 1920.  
Discusses the development of spirituality in higher education.
176. **Squires, Vernon P.** Bible study in public schools. *National school digest*, 40: 284-86, January 1921.  
Practical results obtained in the schools of North Dakota. Influence of the work upon other states.
177. **Super, Paul.** Training a staff; a manual for Young men's Christian association executives. New York, Association press, 1920. xx, 300 p. 8°.

## MANUAL AND VOCATIONAL TRAINING.

178. **Anderson, Lewis F.** Beginnings in industrial education. School and society, 18: 1-9, January 1, 1921.  
Seventeenth century plans and proposals for providing industrial education in common and in vocational schools.
179. **Bowman, Clyde A.** Graphic aids in vocational teaching analysis. Industrial-arts magazine, 10: 9-13, 49-53, January, February 1921.
180. **Hall, E. M.** The industrial cooperative course of the Lansing high school. American machinist, 54: 83-86, January 20, 1921. illus.  
A course, open to the youths of the city of Lansing, Mich., intended to provide thorough training and experience in technical trades.
181. **Industry awards university scholarships.** National association of corporation training bulletin, 8: 12-19, January 1921.  
Tells of four business organizations now granting scholarships in universities to certain of their worthy employees. The plans under which the scholarships are awarded are here given in detail.
182. **Leonard, Robert J.** One promotional aspect of the Smith-Hughes act—part-time education. Educational administration and supervision, 6: 491-598, December 1920.  
Discusses the need for part-time schools, principles of organization, occupational extension, continuation schools, state legislation, etc.
183. **Petersen, Louis C.** Educational toys; consisting chiefly of coping-saw problems for children in the school and the home. Peoria, Illinois, The Manual arts press [1920] 112 p. illus. 4°.
184. **Sanderson, Dwight.** The status of social and economic studies in rural vocational high schools. Vocational summary, 3: 120-22, December 1920.
185. **Smith, Henry Louis.** Your biggest job; school or business. Some words of counsel for red-blooded young Americans who are getting tired of school. New York, London, D. Appleton and company, 1920. xl, 79 p. 16°.
186. **Sowers, J. L.** Prevocational education—a suggested outline. Educator-journal, 21: 199-203, December 1920.  
Prevocational work of the seventh and eighth grades.
187. **U. S. Federal board for vocational education.** A tuberculosis background for advisers and teachers. Washington, Government printing office, 1920. 42 p. 8°. (Bulletin no. 59. Reeducation series no. 8, November 1920)
188. **Vaughn, S. J.** Purpose, terminology, and psychological basis of industrial work. Industrial-arts magazine. 10: 1-6, January 1921.  
This is the ninth paper in a series entitled "First aid to the inexperienced."
189. **Woodworth, C. W.** Industrial education for China. Mid-Pacific magazine, 21: 49-51, January 1921.  
This article is along the lines of the Pan Pacific university which has been advocated for several years by the leading workers in the Pan Pacific union.

## VOCATIONAL GUIDANCE.

190. **Evans, Owen D.** Vocational guidance in the continuation school. Manual training magazine, 23: 209-14, January 1921.
191. **Maverick, Lewis A.** The status of vocational guidance in Massachusetts, April 1919. School review, 29: 31-37, January 1921.  
Shows present status of vocational education in Massachusetts; educational guidance; and vocational counselors and instructors. Says that the chief burden of vocational guidance rests upon the regular teachers without allowance of either time or money for the extra work.

192. Vance, Thomas F. Mental tests in vocational guidance. National school digest, 40: 282-84, January 1921.

The possibilities of mental tests in vocational guidance. Suggests a method for determining vocational aptitude.

### HOME ECONOMICS.

193. Snedden, David. Home economics in college and university. School and society, 13: 71-73, January 15, 1921.

### PROFESSIONAL EDUCATION.

194. Foster, O. D. Student attendance at the Protestant theological seminaries. Christian education, 4: 12-22, December 1920.

195. MacLeish, Archibald. Professional schools of liberal education. Yale review, 10: 362-72, January 1921.

Says that education should labor to set men free, free from the bigotry of isolation, free from the prejudice of ignorance. Liberalism as related to professional schools.

196. Stegman, Henry M. A nurses' college. American journal of nursing, 21: 228-31, January 1921.

Says that recruiting for the nurse's vocation would be stimulated if the invitation were to come to a college instead of to a training school. Advocates the establishment of nurses' colleges.

197. Talbot, Eugene S. The dental education problem. Dental cosmos, 63: 34-38, January 1921.

Says that the present methods of dental practice in a measure are failures. Declares there are four requirements necessary for the future education of the dentist: (1) A liberal academic education; (2) the fundamental principles of medicine; (3) the clinical training for the specialty; (4) the opportunity for the graduate to finish his medical studies without loss of time or expense if he so desires.

198. Willes, Hugh E. Standards of legal education. School and society, 13: 9-14, January 1, 1921.

Discusses the problem of how to get into the legal profession the best possible attorneys.

### CIVIC EDUCATION.

199. Blashfield, Herbert W. Training for Christian citizenship. Religious education, 15: 323-30, December 1920.

What is being actually attempted in the church schools in training for Christian citizenship.

200. Harap, Henry. Objectives in community civics. School and society, 12: 634-38, December 25, 1920.

Objectives concerned with civic habits, with civic knowledge, with civic service, and with the use of civic agencies.

201. McCormack, Thomas J. Civic education. School and home education, 40: 79-84, December 1920.

Paper read at the Illinois high school conference at Champaign, November 19, 1920.

202. Stebbins, C. A., ed. Film lessons for the classroom. No. 1. Advance notice of a course on civics. San Francisco, The F. S. Wythe pictures corporation [1920?] 16 p. 8°.

## AMERICANIZATION.

203. The basis of Americanization. Unpartizan review, 15: 92-99, January-March 1921.

A plea for spelling reform.

204. Gibbs, Lincoln B. Americanization and literature. English journal, 9: 551-56, December 1920.

A task for the teacher of literature in high school and college.

205. Gray, Robert Floyd. The teaching of English to the foreign-born. School and society, 13: 67-71, January 15, 1921.

206. Kelsey, Carl, ed. Present-day immigration, with special reference to the Japanese. Philadelphia, The American academy of political and social science, 1921. v, 232 p. 8°. (Annals of the American academy of political and social science. vol. 93, no. 182, January 1921)

Contains: Part III—Some factors affecting the assimilation of the immigrant.—1. Carol Aronovici: Americanization, p. 134-38. 2. H. A. Miller: The oppression psychosis and the immigrant, p. 139-44. 3. Ruby Baughman: Elementary education for adults, p. 161-68. 4. T. E. Finegan: The education of the illiterate immigrant, p. 168-73. 5. Talcott Williams: The political education of the immigrant, p. 173-80.

In paper no. 2, listed above, a viewpoint somewhat new is presented by Professor Miller, who emphasizes the importance of psychological reactions of people who have lived under repression.

207. Roberts, Peter. The problem of Americanization. New York, The Macmillan company, 1920. ix, 246 p. 12°.

This book is designed to aid men and women giving all or part time to the work of Americanization. The program and organization here outlined have been successfully used in many fields, and are the fruit of the author's years of service as director of Americanization work for the Y. M. C. A.

208. Sasamori, Junzo. What are the Japanese doing toward Americanization? Japan review, 6: 22-24, December 1920.

The various activities on the part of the Japanese which definitely contribute toward their own Americanization.

## EDUCATION OF SOLDIERS.

209. Rorer, J. T. Educational opportunity in the army of occupation. Mathematics teacher, 13: 45-52, December 1920.

Concluded from preceding number. Educational work in Germany by the American army of occupation.

210. Snyder, James E. Occupational training in the army. Manual training magazine, 23: 214-19, January 1921. illus.

211. United States. Adjutant general's office. The educational system of the United States army. The army as a national school. Washington, D. C., The Adjutant general of the Army, 1920. 55 p. plates. 8°.

Tells of the educational and vocational training programme of the United States Army and sets forth the plans and desires of the War Department for the improvement and recreation of the young men entering the Army.

## EDUCATION OF WOMEN.

212. Filene, Catherine, ed. Careers for women. Boston, New York, Houghton Mifflin company, 1920. 576 p. 12°.

213. Johnson, Alice. Some problems for a preceptress to solve. Idaho teacher, 2: 234-37, January 1921.

The duties of the dean of girls in the high school at Twin Falls, Idaho.

214. Slosson, Edwin E. *Traitors to Cornell*. Independent, 104: 396-97, December 18, 1920.

Discusses the question of coeducation.

215. *Teaching*, vol. 5, no. 5, November 1920. (Halls of residence)

Contains: 1. Alberta L. Corbin: Housing students at Kansas state schools, p. 6-8. 2. Alberta L. Corbin: The housing problem in the state schools, p. 9-10. 3. From the catalogs of other state schools, p. 12-15. 4. Hannah Oliver: What will Kansas do for her daughters, p. 15-16. 5. What folks say, p. 16-19.

216. U. S. Federal board for vocational education. Trade and industrial education for girls and women. Washington, Government printing office, 1920. 106 p. 8°. (Bulletin, no. 58. Trade and industrial series no. 15. October 1920)

Pt. 1. Economic and social aspects of vocational education for girls and women. Pt. 2. Ways and means of establishing and operating a program.

### NEGRO EDUCATION.

217. Davis, Jackson. *Building a rural civilization*. Some educational results among Southern Negroes. [Hampton, Va., Hampton institute, 1920] 17 p. illus. 8°.

Reprinted from the Southern workman for November and December 1920. Contains: I. County training schools. II. Supervising industrial teachers.

218. Gandy, John M. Educational reconstruction. Southern workman, 50: 38-42, January 1921.

Discusses educational reconstruction and welfare work among Negroes, with emphasis on the problem of teaching.

### EDUCATION OF DEAF.

219. National association of the deaf. Proceedings of the thirteenth convention . . . held in Detroit, Mich., August 9-14, 1920. Washington, D. C., Gallaudet press, 1920. 160 p. 8°. (The Nad, vol. 5, no. 4, December 1920) (Arthur L. Roberts, secretary-treasurer, Kendall Green, Washington, D. C.)

220. Booth, F. W. The education of the deaf. Volta review, 23: 25-29, January 1921.

A statistical and historical study.

### EXCEPTIONAL CHILDREN.

221. Carothers, Willis H. The supernormal child. Teaching, 5: 20-27, November 1920.

Individual differences and their causes, what the opponents of special classes charge, history of administrative changes for the gifted child, recommendations, etc.

222. George, William B. Social sanitariums and social doctors. Outlook, 127: 18-21, January 5, 1921. illus.

First discusses the subject of punishment vs. treatment for social ills, and then speaks briefly of the Junior republic at Freeville, N. Y.

223. Lickley, E. J. Order of work in special schools. Los Angeles school journal, 4: 3-6, December 20, 1920.

Tells of a method that has worked successfully for fifteen years in the special schools of Los Angeles. Says the order of importance of work in a special school is (1) Attendance; (2) Obedience; (3) Work of any kind; and (4) Good work.

224. Ferrin, H. A. The exceptional child. School news and practical educator, 34: 302-305, January 1921.

Discusses the treatment that should be given the accelerated type of child in our schools.

225. **Wallin, J. E. Wallace.** A comparison of three methods for making the initial selection of presumptive mental defectives. *School and society*, 13: 31-45, January 8, 1921.

Delivered, in abstract, before the section of clinical psychology of the American psychological association, Chicago, December 1920.

226. **Wyoming. Department of education.** First report of the state director of special classes, 1919-1920. [Cheyenne, Department of education, 1920] 28 p. pl. 8°.

#### EDUCATION EXTENSION.

227. **Clark, Ruth S.** The continuation school. *Survey*, 45: 541-42, January 8, 1921.

Discusses the continuation school in the educational system of New York city.

228. **Fox, Genevieve M.** When labor goes to school; a story of the workers' educational movement. New York, National board Young womens Christian associations, 1920. 80 p. 16°.

229. "Silas Burch." The day continuation school. *South African quarterly*, 2: 30-33, December 1920.

Conditions in South Africa. Discusses the provisions of the Fisher education bill; and their possible application in South Africa.

#### LIBRARIES AND READING.

230. The booklovers of tomorrow. *Bookman*, 52: 326-32, January 1921.

Contains: 1. P. P. Claxton: Teaching literature, p. 326-29. 2. Sherman Williams: School libraries, p. 329-30. 3. J. H. Finley: Dr. Finley's endorsement, p. 330-31. 4. J. L. Wheeler: A practical plan in operation, p. 331-32. 5. Payson Smith: Reading should be encouraged, p. 332.

Thinks that careless contemplation of the screen must not supplant the thoughtful reading of a book. The *Bookman* is making an effort to foster genuine appreciation of literature in the minds of the rising generation. The librarian of the public library of Youngstown, Ohio, tells of the plan of cooperation between the schools of his city and the library in promoting home reading with school credit, in paper no. 4.

231. **Eaton, Anne Thaxter.** What the library and the English department can do in co-operation for the whole school. *English journal*, 9: 570-78, December 1920.

232. **Moore, Annie Carroll.** Roads to childhood; views and reviews of children's books. New York, George H. Doran company [1920] 240 p. 12°.

233. **Smith, Leon O.** The high school library. *Middle-west school review*, 13: 5-7, January 1921.

An address before the superintendents and principals of the Nebraska state teachers' association.

Contains a suggested outline of a course of study in the use of books and libraries.

#### BUREAU OF EDUCATION: RECENT PUBLICATIONS.

234. Education for highway engineering and highway transport. Report of the Conference on highway engineering and highway transport education, held in Washington, May 14 and 15, 1920, under the direction of the Commissioner of education . . . Washington, 1921. 134 p. (Bulletin, 1920, no. 43)

235. List of references on the use of pictures in education. Prepared in the Library division, Bureau of education. Washington, 1921. 12 p. (Library leaflet no. 13, December 1920)

236. A school building program for Gloucester, Mass. Washington, 1920. 16 p. (Bulletin, 1920, no. 23)



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BUREAU OF EDUCATION

BULLETIN, 1921, No. 4

MONTHLY RECORD  
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MARCH-APRIL, 1921



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# MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS.

Compiled by the Library Division, Bureau of Education.

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**CONTENTS.**—Proceedings of associations—Educational history and biography—Current educational conditions—Educational theory and practice—Educational psychology; Child study—Educational tests and measurements—Special methods of instruction—Special subjects of curriculum—Kindergarten and primary school—Rural life and culture—Rural education—Secondary education—Normal training—Teachers' salaries and professional status—Higher education—Research—School administration—School management—School buildings and grounds—School hygiene and sanitation—Physical training—Play and recreation—Social aspects of education—Child welfare—Moral and religious education—Manual and vocational training—Vocational guidance—Agriculture—Home economics—Commercial education—Medical education—Engineering education—Civic education—Americanization—Education of service men—Education of women—Negro education—Education of deaf—Exceptional children—Education extension—Libraries and reading—Bureau of education: Recent publications.

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## NOTE.

The record comprises a general survey in bibliographic form of current educational literature, domestic and foreign, received during the monthly period preceding the date of publication of each issue.

The issues of the record for March and April, 1921, are combined in the present double number.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

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## PROCEEDINGS OF ASSOCIATIONS.

237. **Maryland state teachers' association.** Fifty-third annual meeting. . . . Ocean City, Maryland, June 29-July 1, 1920. 111 p. 12°. (Hugh W. Caldwell, secretary, Frederick, Md.)

Contains: 1. L. S. Hawkins: Education in a democracy and democracy in education, p. 15-19. 2. Gonzales Lodge: A reasonable plea for the classics, p. 23-37. 3. E. V. McCollum: What to teach the public regarding food values, p. 37-47.

238. **Ohio. Department of public instruction.** Report of proceedings Ohio schoolmen's conference, October 11-12, 1920. Issued under the direction of Vernon M. Riegel, superintendent of public instruction. Columbus, Ohio, The F. J. Heer printing co., 1920. 82 p. 8°.

Contains: 1. H. B. Turner: The organization and administration of the junior high school, p. 11-14. 2. R. G. Jones: The junior high course of study, p. 16-22. 3. G. R. Twiss: School surveys, their uses and limitation, p. 43-49. 4. Helen T. Woolley: Intelligence tests in the public schools, p. 49-51. 5. Alfred Vivian: Education for culture, p. 59-63. 6. W. B. Bliss: Before and after testing, p. 67-78.

## EDUCATIONAL HISTORY AND BIOGRAPHY.

239. **Curoe, Philip B. V.** Outline of the history of education. Part I. Ancient and medieval times. New York, Globe book company [1921] v, 72 p. 12°.
240. **Finney, Ross L.** The American public school; a genetic study of principles, practices, and present problems. New York, The Macmillan company, 1921. xiv, 335 p. illus. 12°. (Modern teacher's series, ed. by W. C. Bagley.)  
A concise history of the American public school system for normal students.
241. **Graham, Edward.** The Harrow life of Henry Montagu Butler, D. D. Headmaster of Harrow school (1860-1885) Master of Trinity College, Cambridge (1886-1918) With an introductory chapter by Sir George O. Trevelyan. London, New York [etc.] Longmans, Green, and co., 1920. 433 p. front., plates, ports. 8°.
242. **Kekewich, G. W.** The education department and after. London, Constable and company, ltd. [1920] 358 p. 8°.
243. **Old school-books.** In The contributors' club. Atlantic monthly, 127: 422-24, March 1921.
244. **Pulsifer, W. E.** A brief account of the educational publishing business in the United States. Atlantic City, N. J., March 2, 1921. 36 p. 8°.
245. **Smith, Edgar F.** Priestley in America 1794-1804. Philadelphia, P. Blakiston's son & co. [1920] 173 p. 12°.  
An account by the former provost of the University of Pennsylvania of the final decade of the life of Dr. Joseph Priestley, spent at Northumberland, Pa.

## CURRENT EDUCATIONAL CONDITIONS.

### GENERAL AND UNITED STATES.

246. **Alexander, Carter.** Motives utilized in successful publicity campaigns for better school support. School review, 29: 292-304, April 1921.  
A study based on a questionnaire sent, in 1919, to many city superintendents throughout the United States relative to successful publicity campaigns for better school support.
247. **Benner, Thomas E.** A comparative study of the elementary schools, white and colored, of the 67 counties of Alabama. Montgomery, Ala., Brown printing co., 1921. 14 p. charts, tables. 8°.  
Reprinted from Alabama school progress for February, 1921.
248. **Blakely, Paul L.** Is the United States ninth in literacy? America, 24: 595-96, April 9, 1921.  
An examination into the table of percentages of illiteracy in foreign countries issued by the Bureau of the Census in 1915.

249. **Brown, Gilbert L.** Inequality of educational opportunity. *Journal of educational research*, 3: 195-200, March 1921.  
A study of the schools in a Michigan village.
250. **Bunker, Frank F.** The problem and the opportunity of the public school of Hawaii. *Educational review*, 61: 100-9, February 1921.  
Data based on a recent educational survey of Hawaii, conducted under the auspices of the U. S. Bureau of Education. Emphasizes the retarding effects of the language schools on the Americanization of pupils.
251. **Campbell, John C.** The Southern highlander and his homeland. New York, Russel Sage foundation, 1921. xxi, 405 p. plates, maps. 8°. Chapter XIII, p. 260-98, which is on Education, describes the school situation in the mountain districts. Bibliography of authorities consulted in preparing the book: p. 375-89.
252. **Clark, Harry.** Various accrediting agencies of the nation. *Journal of education*, 93: 115-17, February 3, 1921.
253. **Cobb, Stanwood.** A new movement in education. *Atlantic monthly*, 127: 227-34, February 1921.  
By the secretary of the Progressive education association, describing the new type of progressive school which gives the largest possible freedom to the child. The writer thinks the public schools should be reorganized on the progressive model.
254. **De Voss, J. C.** A mental inventory. *Teaching*, 5: 4-13, January 1921.  
Chapel address at the Kansas State normal school, Emporia.
255. **Eliot, Charles W.** Protection against ignorance. *Nation's business*, 9: 9-10, February 1921.  
Dr. Eliot here presents a definite program for making the American school system a foundation on which to build a clear-thinking electorate.
256. **Finegan, T. E.** Pennsylvania's educational program. *Pennsylvania school journal*, 69: 279-85, January 1921.  
Address before the Pennsylvania state education association, December 30, 1920.
257. **General education board.** Annual report, 1919-20. New York city, General education board [1921] x, 141 p. 12°.
258. **Hartwell, E. C.** Wise and responsible leadership. *Journal of education*, 93: 143-45, February 10, 1921.  
The paramount need in American education is the development of wise and responsible leadership.
259. **Illiteracy in the United States.** *American review of reviews*, 63: 220-21, February 1921.  
Comments on a synopsis of illiteracy in the United States published by Winthrop Talbot in the *Scientific American*.
260. **Institute for public service, New York.** Who's who and why in after-war education. New York, Institute for public service [1921] 432 p. 12°. Contains biographical sketches of educators, lists of educational associations, periodicals, tests and measurements, etc.
261. **James, Harlean.** Of, by, and for the people. *American review of reviews*, 63: 192-96, January 1921.  
Discusses the status of the various educational bills in Congress, also the maternity and infancy bill.

262. **King, Henry Churchill.** A new mind for the new age. New York, Chicago [etc.] F. H. Revell company [1920] 192 p. 12°.  
The Cole lectures for 1920 delivered before Vanderbilt university.  
Three chapters deal with the new age following the world war: its evidence; its perils; its values. Conversely three other chapters portray the new mind needed for the new age—the political, economic, and social challenge; the educational challenge; the moral and religious challenge.
263. **Strayer, George D.** A national point of view in education. American city, 24: 115-18, February 1921.

Discusses financing education in the United States. Urges support of the Smith-Towner bill.

264. **Thomason, John F.** . . . School survey of York County; a study of school plants, costs and program. [Rock Hill, S. C., 1920] 87 p. illus. tables, diagrs. 8°. (Bulletin of Winthrop College, no. 1, Sept., 1920, vol. xiv)
265. What is the real emergency? By a friend of the editor. Journal of education, 93: 199-203, February 24, 1921.

Author says public ignorance of school problems and conditions is the chief cause of all the ills that afflict the schools.

#### FOREIGN COUNTRIES.

##### *Latin America.*

266. **Pan American union.** Section of education. Report submitted to the governing board of the Pan American union at the meeting of January 5, 1921, by the assistant director in charge of the section. Bulletin of the Pan American union, 52: 155-59, February 1921.

Also issued as separate pamphlet.

267. The problem of national education in Cuba. American review of reviews, 63: 208-9, February 1921.

Says that the educational system installed by the United States and turned over to Cuba in 1902 has greatly deteriorated. Gives the reasons assigned for this deterioration by Dr. Arturo Montori, also defects found in the private school system by Dr. Ismael Clark and a committee of four.

268. "Sovietizing" the schools in Mexico. Nation, 112: 216-18, February 9, 1921.

Gives the text of the proposed Mexican education law, which was drawn up by José Vasconcelos, dean of the National university. Regarding it, there has been much newspaper discussion of the "sovietizing" of the schools through the appointment of local councils of education made up of representatives of parents, teachers, and the public authorities. There is also a provision that directors and faculties of high schools are to be nominated by the students and teachers in each institution and by independent scientific bodies.

##### *Europe.*

269. **Hosic, J. F.** The educational trend in Europe. Journal of the National education association, 10: 19-20, February 1921.

##### *Great Britain.*

270. **Adams, John.** The present educational position. Contemporary review, 119: 193-99, February 1921.  
Status of the Fisher educational bill in England. A review and criticism.
271. **Aynard, Joseph.** L'esprit d'observation dans l'éducation anglaise. Education, 12: 395-400, January 1921.

272. **Edwards, Alfred George, *archbishop*.** National education. Nineteenth century, 89: 557-65, April 1921.

A discussion of the English education act and religious instruction, by the Archbishop of Wales.

273. **Guest, L. Haden, *ed.*** The new education; a critical presentation of the education scheme of the London education authority, October, 1920. London, Hodder and Stoughton Limited, 1920. 118 p. 12°.

Treats the subject under the following headings: The new scheme of education for London, Nursey schools, Elementary education, Secondary education, Central schools, Continuation education.

274. **Woods, Alice.** Educational experiments in England. London, Methuen & co. ltd. [1920] viii, 255 p. 12°.

Sketches the development of elementary education in England since 1850. Shows the growth of the ethical aspect of education and the progress of educational psychology. Describes a number of present-day experiments, and outlines a vision of the future.

*France.*

275. **Darlu, A.** Le conseil supérieur de l'instruction publique. Revue politique et parlementaire, 106: 237-44, February 10, 1921.

Discusses a project for the reorganization of this council.

276. **Delobel, G.** Pour qu'on apprenne l'allemand. Éducation (Paris) 12: 299-304, November 1920.

Reasons why French students should learn the German language.

277. **Dugas, L.** L'université nouvelle; les applications de la doctrine par les Compagnons. Éducation (Paris) 12: 252-62, October 1920.

278. [French normal schools; a series of articles] Revue pédagogique, vol. 78, no. 1, January 1921.

Contains: 1. A. Pézard: La pratique des nouveaux programmes des écoles normales en sciences naturelles, p. 1-17. 2. Les nouveaux programmes des sciences naturelles dans les écoles normales, p. 18-23. 3. Th. Simon: La psychologie expérimentale dans les écoles normales, p. 24-37. 4. La réforme des écoles normales (circulaire de M. le recteur de l'Académie de Rennes), p. 38-40.

279. **Gastinel, G.** L'enseignement secondaire: son objet et sa nature. Revue internationale de l'enseignement, 40: 397-414, 41: 44-57, November-December 1920, January-February 1921.

280. **Maucourant, B.** L'école enfantine en Alsace. Revue pédagogique, 78: 157-77, March 1921.

281. **Picavet, François.** L'éducation nouvelle: morale et éducation. Éducation, 12: 433-40, February 1921.

*Germany.*

282. **Fontàgne, Julien.** Les idées du pédagogue munichois Kerschensteiner. Éducation (Paris) 12: 289-99, 337-47, November, December 1920.

An analysis of the educational doctrines of George Kerschensteiner, of Munich, whom the writer calls the most authoritative representative of contemporary German pedagogy. Kerschensteiner holds that the fundamental object of education is to make the child a good citizen.

283. **Gaudig, Hugo.** Die problematik der schulreform. Zeitschrift für pädagogische psychologie und experimentelle pädagogik, 21: 241-46, September-November 1920.

284. **Lehmann, Rudolf.** Educational tendencies in Germany at the beginning of the twentieth century. *School and society*, 13: 277-86. March 5, 1921.

Translated and composed by Dr. Ernst Rless from the report of Prof. Rudolf Lehmann, Breslau, in the *Jahrbuch des Zentralinstituts für erziehung und unterricht*, II, 1920.

285. Radical reform in the schools of Germany. *American schoolmaster*, 14: 91-95, March 1921.

Translated from *Neue bahnen* by Johanna Alpermann, State normal college, Ypsilanti, Michigan.

286. **Wittig, K.** Der einfluss des krieges und der revolution auf die kriminalität der jugendlichen und ihre behandlung im jugendgefängnis durch willensübungen. Langensalsa, H. Beyer & söhne (Beyer & Mann), 1921. 60 p. 8°. (Beiträge zur kinderforschung und heilerziehung, heft 172).

*Holland.*

287. The new Dutch education act. (From a correspondent) *Times* (London) Educational supplement, 11: 81, February 24, 1921.

See also *School and society*, 13: 465, April 16, 1921.

*Denmark.*

288. **Howe, Frederic C.** Denmark; a cooperative commonwealth. New York, Harcourt, Brace and company, 1921. x, 203 p. 12°.

Chapters VII-X, p. 75-125, of this book deal with education, as follows: VII. A prophet—Bishop Grundtvig; VIII. The people's high schools; IX. Making farming alluring; X. Elementary education.

*Czechoslovakia.*

289. **Mauer, Jean, ed.** L'enseignement dans le République tchécoslovaque. Notes présentées à nos amis de l'étranger par l'Institut pédagogique J. A. Komenský près le ministère de l'instruction publique, Prague. Prague, Société d'édition "l'effort de la Tchécoslovaquie," 1920. 64 p. 8°.

*Russia.*

290. **Rostovtsev, M. I.** The plight of the Russian scholars. *Weekly review*, 4:358-59, April 20, 1921.

The author of this article, a Russian university professor, is now at the University of Wisconsin, under invitation to occupy the chair of ancient history there.

*Far East.*

291. **McKim, John Cole.** Some reflections on the ideogram. *Atlantic monthly*, 127: 499-504, April 1921.

Deals with the Chinese ideogram, which is the written language of China, Korea, and Japan. The use of the ideogram has a profound effect upon education in these countries. The author predicts that in Japan the ideogram will gradually give place to a phonetic system of writing.

292. **Sakamoto, Kiyoshi.** The Chugakko middle school of Japan. *National school digest*, 40: 420-22, March 1921.

## EDUCATIONAL THEORY AND PRACTICE.

293. Cabot, Ella Lyman. Seven ages of childhood. Boston and New York, Houghton Mifflin company, 1921. xxxiv, 821 p. 8°.

Mrs. Cabot divides childhood into the following seven ages: The dependent, dramatic, angular, and paradoxical ages; the ages of the gang, of romance, and of problems. The chief object of the book is to show how children may be taught adaptability to their surroundings, and to realize their duties to others.

294. Cattier, Fernand. La pédagogie de H. G. Wells d'après "La flamme immortelle." *Revue pédagogique*, 78: 100-118, February 1921.

Discusses the educational views expressed in H. G. Wells's *Undying fire*.

295. Douglas, C. E. Setting up school standards. *Education*, 41: 485-493, April 1921.

Says that heredity and extra-schoolroom activities often are of greater educational significance than the procedure of the schoolroom. No school standards can be set up regardless of these forces.

296. Mendenhall, Edgar. The need for a more scientific attitude in education. *Education*, 41: 381-387, February 1921.

297. National society for the study of education. Twentieth yearbook. Part I, Second report of the society's committee on new materials of instruction. Part II, Report of the society's committee on silent reading. Bloomington, Ill., Public school publishing company, 1921. 2 v. 8°.

Part I comprises a collection of 285 projects compiled by the committee with the aid of various sub-committees from material submitted by the representatives of numerous school systems. Chapter VI, p. 189-221, is a bibliography of the project method, classified and annotated.

Part II was prepared by the committee from material submitted by J. A. O'Brien, May Ayres Burgess, S. A. Curtis, C. E. Germane, W. S. Gray, H. A. Greene, Regina R. Heller, J. H. Hoover, J. L. Packer, Daniel Starch, W. W. Thelsen, G. A. Yoakum, and representatives of the school systems of Cedar Rapids, Denver, Iowa City, and Racine. Edited by G. M. Whipple.

298. O'Shea, M. V. Mental development and education. New York, The Macmillan company, 1921. 408 p. illus. 8°.

Designed for teachers in service and for persons preparing to teach. Discusses dynamic factors in teaching, and education as adjustment to the individual's environment.

299. The Parent's library. Chicago, Frederick J. Drake & co. [1920] 9 v. illus., plates. 12°.

CONTENTS.—1. First steps in child training, by M. V. O'Shea. 284 p.—2. The trend of the teens, by M. V. O'Shea. 281 p.—3. Faults of childhood and youth, by M. V. O'Shea. 286 p.—4. Everyday problems in child training, by M. V. O'Shea. 269 p.—5. Putting young America in tune; how to teach the child appreciation of music, by Henriette Weber. 203 p.—6. The home guide to good reading, by D. H. Stevens. 242 p.—7. The proper feeding of infants, by W. H. Galland. 296 p.—8. Diseases of infancy and childhood, by W. H. Galland. 348 p.—9. Maternity and child care, by W. H. Galland. 286 p.

300. Sleight, W. G. . . . The organisation and curricula of schools. London, E. Arnold, 1920. 264 p. 12°. (The modern educator's library. General editor—Prof. A. A. Cock)  
Bibliography: p. 257-60.

301. Stratton, George M. The mind as misrepresented to teachers. *Atlantic monthly*, 127: 366-74, March 1921.

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## EDUCATIONAL PSYCHOLOGY; CHILD STUDY.

302. *L'année psychologique*; fondée par Alfred Binet; publiée par Henri Piéron. Vol. 21, 1914-1919. Paris, Masson et cie., 1920. xli, 522 p. 8°.

Contains: 1. Mlle. Morand: Qu'est-ce que l'attente, p. 1-78. 2. B. Bourdon: Recherches sur les perceptions spatiales auditives, p. 79-109. 3. Henri Piéron: Recherches comparatives sur la mémoire des formes et celle des chiffres, p. 119-48. 4. Mlle. Ot. Vlaicou: Capacité d'appréhension; rapidité d'acquisition et puissance de rétention de souvenirs bruts; recherches de corrélation, p. 171-89. 5. Mlle. Marie Grzegorzewska: Les types d'idéation esthétique, p. 190-208. 6. Notes et revues, p. 209-61. 7. Analyses bibliographiques, p. 263-512. 8. Chronique, p. 513-17.

303. *Averill, Lawrence Augustus. Psychology for normal schools.* Boston, New York [etc] Houghton Mifflin company [1921] xx, 362 p. 12°. (Riverside textbooks in education, ed. by E. P. Cubberley)

An introductory textbook in psychology for teachers in training schools. It first studies, through the child's behavior, his original equipment of instincts and capacities; then follows a study of the child's heredity, and his capacity for learning; and the final division of the volume treats the differences between individuals, the causes for them, and the effect of these differences on the problem of child training. Directions for the study of children by direct observation are included.

304. *Baudouin, Charles. Suggestion and autosuggestion; a psychological and pedagogical study based upon the investigations made by the New Nancy school.* Tr. from the French by Eden and Cedar Paul. New York, Dodd, Mead and company, 1921. 349 p. 8°.

In conjunction with the teachings of psychoanalysis, the psychology of the New Nancy school, founded by Coué, deals with the domain of the subconscious. The practical discoveries of the school are believed to have great significance for educational work as well as for therapeutics.

305. *Dunbar, Olivia Howard. Spring of the year.* Yale review, 10: 565-75, April 1921.

Discusses the characteristics and needs of adolescents in regard to their mental and spiritual development.

306. *Gates, Arthur I. Educational psychology at the Chicago meetings of scientific societies.* Journal of educational psychology, 12: 63-71, February 1921.

A résumé of the proceedings of the joint meetings of the American psychological association, Section I (psychology); and Section Q (education), of the American association for the advancement of science, at the University of Chicago, December, 1920.

307. *Mulford, Henry J. The child mind.* American journal of psychology, 32: 179-95, April 1921.

308. *Pechstein, L. A. Massed vs. distributed effort in learning.* Journal of educational psychology, 12: 92-97, February 1921.

309. *Skaggs, E. B. The relative value of grouped and interspersed recitations.* Journal of experimental psychology, 3: 424-46, December 1920.

This study is largely an outgrowth of the experiments performed by a number of workers along the line of recitation work in learning.

310. *Vendrell, Maria. . . . La timidez en los niños Cubanos.* [Habana] Universidad de la Habana, laboratorio de paidología, 1921. 31 p. 8°. (Monografías paidológicas—Director: Dr. A. M. Aguayo, no. 2)

311. *Watts, Frank. Abnormal psychology and its educational applications.* London, G. Allen & Unwin ltd., [1921] 191 p. 12°.

"First published in 1918 as Echo personalities. Eng. and reset in 1921."



## EDUCATIONAL TESTS AND MEASUREMENTS.

312. Conference on educational measurements. Seventh annual conference on educational measurements, held at Indiana university, Bloomington, Ind., Friday and Saturday, April 18 and 19, 1920. Pub. by the Extension division of Indiana university, 1920. 85 p. tables, diagrs. 8° (Bulletin of the Extension division, Indiana university, vol. VI, no. 1, September 1920)

Contains: 1. E. L. Thorndike: The task of the elementary school, p. 4-18. 2. E. L. Thorndike: The standardization of instruments of instruction, p. 14-24. 3. W. F. Book: Preliminary report on the state-wide mental survey of high school seniors, p. 81-87. 4. Luella Cole Pressey: The relation of intelligence to achievement in the second grade, p. 68-77. 5. H. G. Childs and E. E. Keener: Symposium on educational measurements, p. 81-85.

313. Anderson, John E. A mental survey of the Connecticut industrial school for girls. Journal of delinquency, 6: 271-82, January 1921.

The Yerkes-Bridges point scale and the Army test alpha were used in the survey. A study was made of the relation of grade location to mental age and chronological age.

314. Bell, J. Carleton. Group tests of intelligence: an annotated list. Journal of educational psychology, 12: 103-8, February 1921.

315. Brooks, Samuel S. Conditions revealed by the use of standardized tests in rural schools. Journal of educational research, 3: 13-22, January 1921.

Fourth article on the general topic "Putting standardized tests to practical use in rural schools."

316. Buckingham, B. B. Suggestions for procedure following a testing program—I. Reclassification. Journal of educational research, 2: 787-801, December 1920.

Writer says that the purpose of his study is "to suggest a method of interpreting test results which will have obvious bearing on reclassification, and to point out the advantages in the same connection of a testing program which includes both intelligence and educational tests." To be continued.

317. Burt, H. E. and Arps, G. F. Correlation of army alpha intelligence test with academic grades in high schools and military academies. Journal of applied psychology, 4: 289-293, December 1920.

Concludes that "the low correlation generally found between intelligence tests and academic marks may be to a considerable extent due to the fact that methods of school instruction do not hold students to their maximum efficiency."

318. Calihan, T. W. An experiment in the use of intelligence tests as a basis for proper grouping and promotion in the eighth grade. Elementary school journal, 21: 465-69, February 1921.

Study based on test given all the pupils in the seventh grade of the schools of Galesburg, Ill., who were going into the eighth grade. The test used was the Illinois edition of the Buckingham intelligence and silent reading test. "The results of the study," says the writer, "seem to support the conclusion that intelligence tests are a valuable aid to administrators, teachers, and pupils, inasmuch as they assist greatly, not only in diagnosing individual cases, but also in the reliable grouping of pupils on the basis of ability."

319. Chambers, George G. Intelligence examinations and admission to college. Educational review, 61: 128-37, February 1921.

Says that the most valuable use of intelligence examinations for educational purposes is in connection with the guidance work of the schools.

320. Chapman, J. Crosby. A group intelligence examination without prepared blanks. Journal of educational research, 2: 777-86, December 1920.

12 MONTHLY RECORD CURRENT EDUCATIONAL PUBLICATIONS.

321. Chassell, Clara F. and Chassell, Laura M. A survey of the three first grades of the Horace Mann school by means of psychological tests and teachers' estimates, and a statistical evaluation of the measures employed. *Journal of educational psychology*, 12: 72-81, February 1921.

Concludes that no perfect method of classification and promotion has as yet been devised. The problem is still in the experimental stage.

322. Clarke, W. F. Writing vocabularies. *Elementary school journal*, 21: 349-51, January 1921.

The vocabularies used for investigation in this study were the Ayres list of one thousand words and the lists given in the *Every-day speller*.

323. Colvin, Stephen S. Some recent results obtained from the Otis group intelligence scale. *Journal of educational research*, 3: 1-12, January 1921.

Test made of 2,588 children and older pupils in various schools in Massachusetts and Rhode Island during the school year of 1919-20. Says that the tests serve a useful purpose in determining the comparative intelligence of children, but are misleading as measures of absolute intelligence.

324. Courtis, S. A. and Shaw, Lena A. Courtis standard practice tests in handwriting. Yonkers-on-Hudson, N. Y., World book company, 1921.

The set includes teacher's manual, student's lesson book, instructions, records, scales, etc.

325. Derrick, S. M. A comparative study of the intelligence of 75 white and 55 colored college students by the Stanford revision of the Binet-Simon scale. *Journal of applied psychology*, 4: 316-29, December 1920.

Describes a study made at the University of South Carolina, of which the results show that the Negro is better in memory and in concrete and routine problems than in those that involve mental abstraction and reconstruction.

326. Dickson, Virgil E. and Norton, John K. The Otis group intelligence scale applied to the elementary school graduating classes of Oakland, California. *Journal of educational research*, 3: 106-15, February 1921.

Study based on tests of 1,043 day elementary school pupils who completed the eighth grade in Oakland, January 1920. Says that the results of the tests are not as reliable in the measurement of individuals as in the measurement of classes.

327. Edmondson, Margaret B. A mental survey of first-grade school pupils. *Pedagogical seminary*, 27: 354-70, December 1920.

Study based on individual tests of the 183 first-grade pupils of the public schools of Eugene, Oreg. The Stanford revision of the Binet-Simon scale was used.

328. Germane, Charles E. The value of the corrected summary as compared with the rereading of the same article. *Elementary school journal*, 21: 461-64, February 1921.

An experiment conducted in grades v-ix inclusive of the elementary and junior high schools of the State university of Iowa.

329. ——— The value of the written paragraph summary. *Journal of educational research*, 3: 116-23, February 1921.

The problem is: "What is the relative value of a written paragraph summary of an article, compared with the rereading of the same article for the same length of time?" Concludes that the rereading of an article is a more economical method of study than the written paragraph summary, when each group studies the same amount of time. An experiment conducted in the public schools of Des Moines, Iowa, grades 6, 7, and 8.

330. Gray, P. L. and Marsden, R. E. An application of intelligence tests. *Journal of experimental pedagogy* (London) 6: 33-38, March 5, 1921.

An effort, among other things, to obtain some idea of the range of mental ability found in elementary school classes in England.

331. **Henmon, V. A. C.** An experimental study of the value of word study. *Journal of educational psychology*, 12: 98-102, February 1921.  
An experiment conducted in the Madison (Wis.) high school in 1919-20, with a part of the sophomore class.
332. ——— The measurement of intelligence. *School and society*, 13: 151-58, February 5, 1921.  
Address of vice-president of Section V.—Education, American association for the advancement of science, Chicago, 1920.
333. ——— Standardized vocabulary and sentence tests in French. *Journal of educational research*, 3: 81-105, February 1921.  
The method and technic of these tests are the same as used in developing the Henmon vocabulary and sentence tests in Latin, as set forth in the *Journal of educational psychology*, 8: 515-38, 589-99, November, December 1917; 11: 121-36, March 1920.
334. **Herrig, Anna B.** Promotions in the practice school as determined by the use of standard tests and educational measurements. *Educational administration and supervision*, 7: 217-25, April 1921.
335. **Hilliard, Edmund B.** The importance of physical and mental examinations as an aid to treatment and training in a reform institution. *Journal of delinquency*, 6: 347-54, March 1921.
336. **Hudelson, Earl.** Hudelson English composition scale. *Yonkers-on-Hudson*, N. Y., World book company, 1921. 46 p. 12°.
337. Intelligence and its measurement—a symposium. *Journal of educational psychology*, 12: 123-47, 195-216, March, April 1921.  
Contributors to first article are E. L. Thorndike, p. 124-27; L. M. Terman, p. 127-33; F. N. Freeman, p. 133-36; S. S. Colvin, p. 136-39; Rudolf Plintner, p. 139-43; B. Ruml, p. 143-44; and S. L. Pressey, p. 144-47. The following topics are discussed: (1) The writer's conception of "intelligence," and the best means for measuring intelligence by group tests: (2) What are the most crucial "next steps" in research?  
The following authors appear in the April symposium: V. A. C. Henmon, p. 195-98; Joseph Peterson, p. 198-201; L. L. Thurstone, p. 201-7; Herbert Woodrow, p. 207-10; W. F. Dearborn, p. 210-12; M. E. Haggerty, p. 212-16.
338. **Keener, E. E.** The use of measurements in a small city school system. *Journal of educational research*, 3: 201-6, March 1921.  
Discusses the work of a department of measurements which was established in the public schools of Richmond, Indiana, in 1919. The aim of the department is to make standard tests available for the classroom teacher.
339. **Kohs, S. C.** The block-design tests. *Journal of experimental psychology*, 3: 357-76, October 1920.  
"These tests," says the writer, "fall into the category of 'performance tests' and have been standardized to measure intelligence. They have been purposely devised to eliminate the factor of language." Gives directions for applying tests. Illustrated.
340. **MacDonald, Arthur.** Physical and mental examination of American soldiers. *Modern medicine*, 3: 129-33, February 1921.  
Describes the mental and physical tests used in the Army to determine the fitness of soldiers in the initial selective draft of 1917. A statistical and social study.
341. **Madsen, I. N.** Group intelligence tests as a means of prognosis in high school. *Journal of educational research*, 3: 43-52, January 1921.  
Possibilities of using the Alpha army test, which was given to about one and a half million men in the army and became available for public use at the close of the war. The study is based on results obtained from the high schools at Madison, Wis.; Rockford, Ill.; and Sioux City, Iowa; and from three high schools at Omaha, Neb.

342. **Mead, Arthur R.** Tendencies in educational measurements. *Educational review*, 61: 117-27, February 1921.  
Discusses the essential features of the principal educational measurements. Says that to be scientific we will do best to make claims on the basis of data, and not endeavor to measure all human mental functions with a test devised to measure but a few.
343. **Mensenkamp, L. E.** Tests of mathematical ability and their prognostic values. A discussion of the Rogers tests. *School science and mathematics*, 21: 150-62, February 1921.
344. **Morton, B. L.** The value of a handwriting scale to an untrained teacher. *Journal of educational research*, 3: 133-37, February 1921.
345. **Nifenecker, Eugene A.** Grade norms for the New York city penmanship scale. *Journal of educational research*, 2: 308-37, December 1920.  
The scale represents the muscular-movement method of writing, adopted by the New York schools. The scale is constructed from the product of this system of penmanship.
346. **O'Brien, Francis J.** A quantitative investigation of the effect of mode of presentation upon the process of learning. *American journal of psychology*, 32: 249-83, April 1921.  
In the first half of the investigation significant words were used; in the second half, nonsense-syllables. A study made in the psychological laboratory of Clark university.
347. **O'Hern, Joseph P.** The development of a chart for attainments in reading. *Journal of educational research*, 3: 180-94, March 1921.  
A study based on an investigation made in the elementary schools of Rochester, New York. The tests revealed that practically no special attention was being given to the matter of correct "interpretation" of the material read.
348. **Peterson, Joseph.** The growth of intelligence and the intelligence quotient. *Journal of educational psychology*, 12: 148-54, March 1921.  
A general criticism of intelligence tests and their interpretation. This article is followed by a reply by F. N. Freeman, p. 155-58.
349. **Pintner, Rudolf and Marshall, Helen.** Results of the combined mental-educational survey tests. *Journal of educational psychology*, 12: 82-91, February 1921.  
An effort to solve the practical problems of classification in the school.
350. ——— and **Beamer, Jeannette.** Individual differences measured by psychological tests. *American annals of the deaf*, 66: 168-81, March 1921.  
A comparison between the congenitally and the adventitiously deaf, between the two sexes, and between the deaf and the hearing child.
351. **Pressey, L. C. and Skeel, H. V.** A group test for measuring reading vocabulary in the first grade. *Elementary journal*, 21: 304-9, December 1920.
352. **Rogers, Agnes L.** Intelligence tests and educational progress. *Educational review*, 61: 110-16, February 1921.  
Discusses the value of intelligence tests, and says that only by combining tests of general intelligence with tests of the specific abilities demanded by the college curriculum shall we secure an ideal student body in our higher institutions.
353. **Ruml, Beardsley.** Reconstruction in mental tests. *Journal of philosophy*, 18: 181-85, March 31, 1921.  
Says that the need of to-day is for a clarification of the concepts and hypotheses underlying the mental test field; which may in time lead to the development of a theory of measurement that will be consistent with our best knowledge of mental life.

354. Sayrs, W. C. What should be the character of an English test? *Educational review*, 61: 138-47, February 1921.

The test should be a test of memory; it should find out something of the pupils' power of generalization; and it should offer the pupil an original problem which shall determine approximately the wealth of his "spiritual storehouse."

355. Schwegler, R. A. A comparative study of the intelligence of white and

colored children. *Journal of educational research*, 2: 838-48, December 1920.

Results of a study of 116 pupils drawn from the seventh and eighth grades of the junior high school of Lawrence, Kansas. Writer says: "In all functions that involve intensive concentration of attention on complex subjective activities of a rational type the white group has a distinctly greater ability."

356. Smith, L. O. Mental tests in primary grades. *Middle-west school review*, 13: 6-7, February 1921.

357. Terman, Lewis M. and Whitmire, Ethel D. Age and grade norms for the national intelligence tests, scales A and B. *Journal of educational research*, 3: 124-32, February 1921.

An experiment tried in the public schools of Vallejo, California, on pupils between the ages of 8 and 15 inclusive.

358. Valentine, P. F. A study in intelligence and educational correlations. *Journal of education*, 3: 207-17, March 1921.

A study carried out with a unit group of seventh-grade pupils in one of the public schools of Fresno, California. An experiment made to test the validity of the intelligence scale as an instrument in the regrading and regrouping of pupils.

359. Witham, E. C. Witham's standard geography tests. Cambridge, Mass., J. L. Hammett company [1921] Directions and 8 pams. 8°.

## SPECIAL METHODS OF INSTRUCTION.

### PROJECT METHOD.

360. Grinstead, Wren Jones. The project method in beginning Latin. *Classical journal*, 16: 388-98, April 1921.

Writer is from the Eastern Kentucky state normal school. His paper was delivered as an address before the foreign language section of the Southwestern Ohio teachers' association at Cincinnati, October 29, 1920.

361. Hendricks, B. Clifford. The project as a teaching unit in high-school physics. *School science and mathematics*, 21: 163-72, February 1921.

Says that the subject matter should be drawn from the community life or be closely related to it though not neglecting the subjects relating to the more general world community.

362. Stevenson, John Alford. The project method of teaching. New York, The Macmillan company, 1921. xvi, 305 p. 12°. (Modern teacher's series, ed. by W. C. Bagley)

Considers from a new point of view a method of teaching which is attracting great attention at present.

363. Trafton, G. H. Project teaching in general science. *School science and mathematics*, 21: 315-22, April 1921.

Gives an outline of projects in field and laboratory work.

364. Wells, Margaret Elizabeth. A project curriculum; dealing with the project as a means of organizing the curriculum of the elementary school. Philadelphia and London, J. B. Lippincott company [1921] xi, 338 p. plates. 12°. (Lippincott's school project series, ed. by W. F. Russell.)

This book presents details of an interpretation of the project method worked out by the author in the State normal school at Trenton, N. J. Her system comprises a major project for each grade of the elementary school, large enough to provide a basis for most of the work of that grade throughout the year. Within each major project there are minor related projects which provide the immediate activities making up the daily school work. For use where the proposed organization is not adopted as a whole, the book suggests many ways of connecting the life interests and environing activities of children with the subject matter of the usual school studies.

#### VISUAL INSTRUCTION.

365. Balcom, A. G. The place of motion pictures in education. Moving picture age, 4: 12, 18, February 1921.
366. Egner, Russell F. A suggestion for a national educational film service for educational institutions. Visual education, 2: 27-31, 45, 56, 58, 60, 62, February 1921.
367. Hultgren, C. L. Teaching English to foreigners through motion pictures. Visual education, 1: 25-28, September-October 1920.
368. Jordan, Biverda Harding. Visual aids and class room methods. Visual education, 2: 22-25, January 1921.
369. Orndorff, Marguerite. A motion picture project. Visual education, 2: 11-19, 52, March 1921.  
Describes a method employed by the writer in the Indianapolis public schools.
370. Poffenberger, A. T. Motion pictures and crime. Scientific monthly, 12: 336-39, April 1921.  
Says that the purely commercial spirit of motion picture production should be tempered by a spirit of social welfare and education. Shows the effects of motion pictures on the youthful mind.

#### OTHER METHODS.

371. Goodlander, Mabel R. Education through experience; a four year experiment in the Ethical culture school. Pub. by the Bureau of educational experiments in co-operation with the Parents and teachers association, Ethical culture school. New York, 1921. 36 p. illus. 8°. (Cover: Bureau of educational experiments. Bulletin no. 10.)

#### SPECIAL SUBJECTS OF CURRICULUM.

##### READING.

372. Anderson, C. J. and Merton, Elda. Remedial work in silent reading. Elementary school journal, 21: 336-48, January 1921.  
Discusses the methods and materials used in an attempt to individualize classroom teaching in reading so that the pupils could be given remedial treatment according to their particular needs.

373. **Burgess, May Ayres.** The measurement of silent reading. New York city, Department of education, Russell Sage foundation [1921] 163 p. diagrs. tables. 12°.

This study arises from a recognition of the need of reliable measurements of ability in reading, which is the most important single subject to be learned by a child. The book describes a new scale for silent reading, Picture supplement scale 1, which has been devised by the Department of education of the Russell Sage foundation. The experiments upon which the scale is based, are narrated, with a brief statement of the principles involved. It is believed that this scale is well adapted for testing the exact ability to be measured, and is comparatively free from extraneous elements, which might vitiate the results.

374. **Buswell, G. T.** The relationship between eye-perception and voice-response in reading. *Journal of educational psychology*, 12: 217-27, April 1921.

375. **Kaufmann, Myrtle L.** Planning the use of varied reading materials. *Elementary school journal*, 21: 380-89, January 1921.

Work of primary teacher in the public schools of Springfield, Illinois.

376. **O'Brien, John Anthony.** Silent reading, with special reference to methods for developing speed. A study in the psychology and pedagogy of reading. New York, The Macmillan company, 1921, xvii, 289 p. charts, tables. 12°.

377. **Waldman, Bessie.** Definite improvement of reading ability in a fourth-grade class. *Elementary school journal*, 21: 273-80, December 1920.

Study was made as a part of class work in a course entitled "Special problems in teaching," given at the University of Cincinnati by Miss Frances Jenkins. Members of the class were experienced teachers. The main problem was: How to accelerate the silent-reading rate of a selected number of poor readers.

#### ENGLISH AND COMPOSITION.

378. **National council of teachers of English.** Proceedings of the tenth annual meeting, Chicago, November 25-27, 1920. (W. Wilbur Hatfield, secretary, Chicago normal college, Chicago, Ill.) *English journal*, 10: 39-60, January 1921.

379. **Duddy, Edward A.** A cooperative course in English composition for students in technical courses. *English journal*, 10: 201-7, April 1921.

Describes the operation of a cooperative course in English composition in the freshman and sophomore classes at the Montana state college. The objects of the course are: (1) "To relate the work done in English to the work done in the student's technical courses; (2) to secure close cooperation between the English department and the technical departments in planning the course, and in the business of criticism and correction of the work done; (3) to make the work effective for the student by supplying, whenever possible, an actual audience for him to address."

380. **Hickman, Lucian G.** The teaching of composition and literature in the high schools of Indiana. *English journal*, 10: 142-59, March 1921.

Discussed under three heads: (1) Course of study; (2) preparation of teachers; and (3) work of the teacher.

381. **Hosic, James F.** The National council of teachers of English. *English journal*, 10: 1-10, January 1921.

Presidential address, delivered before the Council, November 26, 1920. Gives an historical résumé of the work accomplished by the Council.

382. **McGregor, A. Laura.** Supervised study in English for junior high school grades. New York, The Macmillan company, 1921. xii, 220 p. 12°.

Illustrates a technic for the treatment of the English lesson in junior high schools where the lengthened period of 60, 70, or 80 minutes prevails.

383. **Payne, Althea A.** Education for leisure as well as for vocation. *English journal*, 10: 208-16, April 1921.  
Limits the discussion to the field of English.
384. **Pound, Louise.** What should be expected of the teacher of English. *English journal*, 10: 179-86, April 1921.  
Discusses the subject under the following topics: (1) The teacher and "outside reading"; (2) the pupils and the "classics"; and (3) the teacher and "citizenship."
385. **Sleezer, Margaret M.** A truly democratic school paper. *English journal*, 10: 183-200, April 1921.  
Activities of the high school journal in the Senn high school, Chicago, Ill.
386. **Wilson, G. M.** Locating the language errors of children. *Elementary school journal*, 21: 290-96, December 1920.  
Conclusions drawn from the studies made in the schools of Connersville, Kansas City, Boise, Cincinnati, etc. The Connersville study, for example, showed that if "the ten most common errors were corrected, 51 per cent of all oral language mistakes made by children would be eliminated." Writer gives the ten most common mistakes from five studies.

## LITERATURE.

387. **Blair, F. H.** On the teaching of literature. *English journal*, 10: 187-92, April 1921.  
Although recognizing the importance of the oral emphasis, the author says that the dynamic teaching of literature is "the very heart of the English teaching process."
388. **Clark, A. Bess.** Another observation from problem English teaching. *Education*, 41: 371-80, February 1921.  
Cultivation of an appreciation of poetry. Method used in Chisholm high school, Minnesota, described.
389. **McMurphy, Susannah J.** Backgrounds for a survey course. *English journal*, 10: 68-79, February 1921.  
High school course in the history of English literature.
390. **Smith, Reed.** . . . Poetry in the high school. *Columbia, S. C. The University*, 1921. 79 p. 8°. (Bulletin of the University of South Carolina. no. 94. Jan., 1921)
391. **Yeomans, Edward.** Literature in the grades. *Atlantic monthly*, 127: 328-37, March 1921.

## ANCIENT CLASSICS.

392. **Brackett, Haven D.** Shall it be Latin or Greek? *Educational review*, 61: 334-45, April 1921.  
A study based on statistics collected from the 26 New England liberal arts colleges, showing how many students in the first semester of the academic year 1919-20 were enrolled in courses in Greek and Latin respectively. A plea for Greek as well as Latin.
393. ——— Statistics of Latin and Greek in the New England colleges. *Classical journal*, 16: 363-65, March 1921.
394. **Cobbs, Mary L.** Latin, one of the essentials of the new curriculum. *Education*, 41: 361-66, February 1921.  
A plea for the classics. Quotes the opinions of eminent men as to the value of Latin and Greek in the curriculum.
395. **Committee on the junior high school syllabus in Latin.** Report. [Albany] University of the state of New York [1920] 73 p. 8°. Members of committee: T. A. Miller, Rochester, N. Y.; A. T. Otis, White Plains, N. Y.; T. H. Briggs, Columbia University; M. D. Gray, Rochester, N. Y.



396. **Greene, William C.** The study of classics as an experience of life. *Classical journal*, 16: 280-88, February 1921.  
Dwells on the political, social and ethical development of the Greeks and Romans. Supplementary studies aside from grammar and translation exercises.
397. **Sauzé, E. B. de.** Problems of first-year Latin. *Classical journal*, 16: 339-45, March 1921.  
Presents the fundamental principles of the first-year Latin course, in the curriculum of the Cleveland public schools.
398. **Wier, M. C.** Latin and Greek as aids to English composition. *Classical journal*, 16: 328-38, March 1921.  
The grammatical and rhetorical advantages of the classics discussed.

## MODERN LANGUAGES.

399. **Bronk, Isabelle.** Attainable aims in modern language teaching in colleges; or, what may we safely hope to accomplish in modern language courses in college. *Modern language journal*, 5: 179-85, January 1921.  
Urges among other things the importance of free composition in the modern foreign language departments.
400. **Denbigh, John H.** Foreign languages in American high schools. *Modern language journal*, 5: 237-48, February 1921.  
Advocates the proper preparation and the employment of American-born teachers for secondary school foreign language work—but they should be in almost every case prepared in part by residence abroad.
401. **Heuser, Frederick W. J.** Regents' examinations in German. *Modern language journal*, 5: 186-99, January 1921.  
Discusses the improvement in modern language instruction in the high schools of New York state.
402. **Walker, Blanche.** What we can learn from the French methods of teaching French. *English leaflet*, 221: 2-10, February 1921.  
Describes the French method of teaching language.
403. **Warshaw, J.** Teachers' courses in Spanish. *Modern language journal*, 5: 200-9, January 1921.
404. **Wilkins, Lawrence A.** Spanish in the high school; a handbook of methods with special reference to the junior high schools. 2d ed., rev. Chicago, New York [etc.] B. H. Sanborn & co., 1921. x, 284 p. 12°.
405. **Williams, C. Scott.** Visualizing the verb forms in Spanish. *Modern language journal*, 5: 317-19, March 1921.

## MATHEMATICS.

406. **Brown, J. C.** The geometry of the junior high school. *Mathematics teacher*, 14: 64-70, February 1921.  
Says that the mathematics of the school has not been sufficiently related to the mathematics of life outside the school. Argues that the course in mathematics in the junior high school should be a unit; the best possible course for the pupil whether he does or does not continue through the senior high school.
407. **Buckingham, B. B.** Mathematical ability as related to general intelligence. *School science and mathematics*, 21: 205-15, March 1921.  
Concludes that mathematical ability is in no small degree *sui generis*. Submits data drawn from the files of the Bureau of educational research regarding intelligence tests in mathematics made in the schools of Urbana, Ill., and Chicago, Ill., also the University of Chicago.

408. **Henderson, Archibald.** The teaching of geometry. Chapel Hill, N. C. [The University] 1920. 49 p. 8°. (The University of North Carolina record, Oct., 1920. no. 181. Extension series no. 39.)
409. **Myers, G. W.** Outstanding pedagogical principles now functioning in high school mathematics. Mathematics teacher, 14: 57-63, February 1921.
410. **Overman, James Robert.** Principles and methods of teaching arithmetic. Chicago, New York, Lyons and Carnahan [1920] v, 340 p. 12°.
411. **Schmitt, Clara.** Extreme retardation in arithmetic. Elementary school journal, 21: 529-47, March 1921.  
Says that the number defects of children discovered in an investigation by the writer were largely the results of defects in the educational process rather than defects in the innate mental make up of the pupils.
412. Symposium of discussion on the National committee report on junior high school mathematics. Mathematics teacher, 14: 16-41, January 1921.  
Reprints of parts 4, 5, and 6 of the National committee report on junior high school mathematics, followed by discussions. The complete report is published by the U. S. Bureau of education, Secondary school circular, 1920, no. 6.
413. **Thorndike, E. L.** The psychology of drill in arithmetic. Journal of educational psychology, 12: 183-94, April 1921.
414. **Van Denberg, Joseph K.** Articulation of junior and senior high school mathematics. Mathematics teacher, 14: 88-94, February 1921.  
Says that the unity and continuity in and between senior and junior schools can be successfully secured by compelling the teachers of the two schools to become acquainted with each other's work.
415. **Young, J. W.** The work of the National committee on mathematical requirements. Mathematics teacher, 14: 5-15, January 1921.  
The National committee, organized in 1916 under the auspices of the Mathematical association of America, was instructed to investigate the whole field of mathematical education, and to make recommendations for improvement of courses of study and methods of teaching.

## SCIENCE.

416. **Caldwell, Otis W.** Contribution of biological sciences to universal secondary education. School science and mathematics, 21: 103-15, February 1921.  
Contents that biological studies for universal secondary education should be largely social in their objective.
417. **Downing, Elliot R.** The scientific basis of science teaching. Science, n. s. 53: 250-52, March 18, 1921.  
Among other things recommends that the science teachers of the country be organized into a national association.
418. **Osborne, C. E.** How may local interest in chemistry be increased? School science and mathematics, 21: 128-34, February 1921.  
Presents an outline for a chemistry exhibit. Work accomplished in popularizing chemistry at the Oak Park and River Forest township high school, Oak Park, Ill.
419. **Powers, S. R.** The achievement of high school and freshman college students in chemistry. School science and mathematics, 21: 366-77, April 1921.
420. **Slosson, Edwin E.** A new agency for the popularization of science. Science, 53: 321-23, April 8, 1921.  
Discusses the dissemination of scientific information among schools and colleges by a new institution, the Science service, which has been established at Washington, D. C.

421. **Van Buskirk, E. F.** Aspects of biology in general science and the aims to be attained. *School science and mathematics*, 21: 307-15, April 1921.  
Discusses the importance of biology in the high school curriculum as an agency in sex education.

## GEOGRAPHY.

422. **Atwood, W. W.** The new meaning of geography in American education. *School and society*, 13: 211-218, February 19, 1921.  
Inaugural address given at the installation of the president of Clark university. The author says that geography is a science and is concerned with the interpretation of the world's present condition.
423. **Boulger, Martha L.** The physiography of northern Italy. *Journal of geography*, 20: 55-66, January 1921.  
Illustrates "a type of humanized geography, *i. e.*—a type that establishes the relation of physical features to human efforts and interests." Includes a series of lessons for ninth year students in either junior or senior high school.
424. **Brown, Robert M.** Home introduction to regional geography: Rhode Island. *Journal of geography*, 20: 41-54, February 1921.  
Discusses the factors making for success in the teaching of regional geography.
425. **Horn, John Louis.** A method of teaching map geography. *Journal of geography*, 20: 105-10, March 1921.

## HISTORY.

426. **Bullough, Edward.** The relation of literature to history. *Modern languages* (London), 2: 37-47, February 1921.  
Urges the abandonment of the teaching of literary history in schools, because of its "infinite complexity and constant flux." Says that it is outside the range of interests and ideas of children and even of adolescents.
427. **Gullander, Magnhilde.** The "socialized" recitation in high school history. *High school journal*, 4: 7-8, 17-19, January 1921.
428. **Latourette, K. S.** A history teacher's confession of faith. *Ohio history teachers' journal*, Bulletin no. 19, November 1920, p. 177-82.  
Delivered at the Joint session of the Ohio teachers' association, October 16, 1920.
429. **Tryon, Rolla Milton.** The teaching of history in junior and senior high schools. Boston, New York [etc.] Ginn and company [1921] v, 294 p. 12°.

## MUSIC.

430. **Music supervisors' national conference.** *Journal of proceedings of the thirteenth annual meeting . . . Philadelphia, Pennsylvania, March 22-26, 1920.* 243 p. 8°. (Miss E. Jane Wisenall, secretary, Cincinnati, Ohio.)  
Contains: 1. S. L. Williams: Music appreciation in the elementary grades. Introductory address by the chairman, p. 44-51. 2. I. F. Damon: Public school piano classes as I have known them, p. 69-72. 3. D. R. Gebhardt: Normal school and teachers' college training for supervisors, p. 85-87. 4. G. M. Tindall: Music appreciation in the high school, p. 99-102. 5. J. W. Beattie: Instrumental classes in the public schools. An introduction to discussion, p. 102-108. 6. J. P. Marshall: Status of outside credit in Boston and other Massachusetts cities.
431. **Weaver, Paul John.** Music in the public schools. Chapel Hill, N. C., The University, 1921. 11 p. 8°. (University of North Carolina. Extension leaflets. vol. IV, no. 6, February 1921)

# ART.

432. Christensen, Erwin O. Points of approach in the teaching of art history. Quarterly journal of the University of North Dakota, 11, 127-33, January 1921.
433. Winslow, L. B. Will H. Low's paintings in the New York state education building. American magazine of art, 12: 41-50, February 1921.  
Article is illustrated with pictures of Low's paintings in the New York state education building.

# ELOCUTION.

434. Martin, Frederick. The prevention and correction of speech defects. English journal, 10: 20-27, January 1921.
435. Reeves, J. Walter. Report of the committee on college entrance credit. Quarterly journal of speech education, 7: 57-64, February 1921.  
Discusses college entrance credit for work in public speaking done in secondary schools. Presents recommendations which were adopted by the National association of teachers of speech.
436. Weaver, Andrew T. The content of a high school course in speech. Quarterly journal of speech education, 7: 6-12, February 1921.  
Says that the determining factor in the choice of the subject matter for any course must be its objective,—what we are designing the course to accomplish.

# DRAMATICS.

437. Baker, George P. The 47 workshop. Century, 101: 417-25, February 1921.  
The course in play-writing at Harvard university.

# TEMPERANCE.

438. Stoddard, Cora F. Scientific temperance instruction in the schools of the United States. Scientific temperance journal, 29: 211-21, December 1920.

# SAFETY.

439. Connecticut. State department of health. Health and safety manual for schools; a guide for teachers. Hartford, 1920. 50 p. illus. 8°.

# KINDERGARTEN AND PRIMARY SCHOOL.

440. Blackburn, Mary. Montessori experiments in a large infants' school. With an introduction by Edmond Holmes. London, Constable and company limited, 1920. 143 p. front., plates. 12°.  
The author is from Kirkstall road council school, demonstration school for city training college, Leeds, Eng.
441. Groszmann, W. H. Childhood problems. Kindergarten and first grade, 6: 48-53, February 1921.  
Briefly enumerates the problems of childhood.
442. Owen, Grace, ed. Nursery school education. London, Methuen & co., ltd. [1920] 176 p. plates. 12°.
443. Pratt, Mary B. Kindergarten primary education. Education, 41: 368-97, February 1921.  
"A suggestive course of study for experienced teachers or for mature students in normal schools; psychologically interpreted."

444. **Wheelock, Lucy, ed.** The kindergarten children's hour. In five volumes. Boston, New York, Houghton Mifflin company [1920] 5 v. illus. 12°.  
 CONTENTS: v. I. Stories for little children, comp. by Susan S. Harriman.—v. II. Children's occupations, by Maude C. Nash.—v. III. Talks to children, by Alice Packard.—v. IV. Talks to mothers, by Lucy Wheelock.—v. V. Songs with music, comp. by Alice M. Wyman.
445. **Worst, Edward F.** Construction work for the primary grades. Milwaukee, Wis., The Bruce publishing co. [1920] 291 p. illus. 12°.
446. **Wright, A. Vera G.** The unrelated family; being an account of a woman's experiment in child education. With a foreword by the Rev. W. Hume Campbell. London, Jarrolds, ltd. [1920] 144 p. front., plates. 12°.

## RURAL LIFE AND CULTURE.

447. **Boyle, James E.** Rural problems in the United States. Chicago, A. C. McClurg & co., 1921. 6 p. l., 142 p. 12°. (National social science series, ed. by F. L. McVey)  
 This book first considers the basic rural problem—the question of the food supply of this nation. Rural conditions and rural needs are next taken up. Then follows a discussion of rural institutions, especially the home, school, church, country store, country bank, and country weekly newspaper, together with a seventh new institution—the county farm and home bureau. The closing chapter calls attention to the soul of the rural community, and suggests means for awakening and fostering community spirit and supplying art, music, literature, and recreation to country residents.
448. **Phelan, John.** Readings in rural sociology. New York, The Macmillan company, 1920. xiv, 632 p. 8°.  
 Contains: Chap. XIII, The country school, p. 337–76.—Chap. XIV, Other educational agencies, p. 377–410.—Chap. XV, The country church, p. 411–54.
449. **U. S. Department of agriculture.** Plans of rural community buildings. W. C. Nason, assistant in rural organization, under the direction of C. J. Galpin, economist. Washington, D. C., 1921. 38 p. illus. 8°. (U. S. Department of agriculture, Farmers' bulletin 1173)

## RURAL EDUCATION.

450. **Bagley, W. C.** The aims of rural education. School and home education, 40: 128–31, March 1921.
451. **Butterworth, J. E.** What should be the function of the rural community in school control? Journal of the New York state teachers' association, 8: 4–11, February 1921.
452. **Gosling, Thomas Warrington.** The duty of Wisconsin to her rural schools. Wisconsin journal of education, 53: 36–39, February 1921.
453. **Lathrop, Edith A.** Dormitories in connection with public secondary schools. School review, 29: 305–9, April 1921.
454. **Nebraska.** Department of public instruction. Nebraska rural school standards. Lincoln, State of Nebraska, Department of public instruction [1920] 20 p. illus. 8°.
455. **Oirich, Mabel S.** Health and the rural teacher. Survey, 45: 727, February 19, 1921.  
 Work of the Health service of the northern division of the Red Cross in studying health conditions of rural-school teachers. Gives statistics of results obtained.
456. **Schools and rural life.** Survey, 46: 57–58, April 9, 1921.  
 Work in Weld county, Colorado, described.

## SECONDARY EDUCATION.

457. **High school conference, Urbana, Ill.** Proceedings of the High school conference of November 18, 19 and 20, 1920. Issued from the High school visitor's office. Urbana, University of Illinois, 1921. 307 p. 8°. (University of Illinois bulletin, vol. 18, no. 14, December 6, 1920)

Contains: 1. H. A. Hollister: Why is a conference, p. 9-15. 2. David Felmley: Report of the Committee on the training of teachers, p. 15-19. 3. O. W. Caldwell: Contribution of biological sciences to universal secondary education, p. 26-33. 4. D. W. Potts: Synopsis of report on part-time schools—finance, p. 34-39. 5. T. J. McCormack: Civic education, p. 43-51. 6. H. G. Schmidt: An analysis of wealth as an objective in education, p. 64-71. 7. Reports from colleges and universities regarding the acceptance of general science as a college entrance subject, p. 88-94. 8. C. W. Odell: Latin tests, p. 118-18. 9. A. L. Nichols: Commercial geography material and its use, p. 127-33. 10. P. E. Beltling: The development of high school spirit as a factor in supervision, p. 135-40. 11. Essie Chamberlain: Literary attitudes and reactions of boys and girls, p. 149-57. 12. C. H. Dalton: Libraries for the manual art teacher and class, p. 192-97. 13. L. E. Wensenkamp: Tests of mathematical ability and their prognostic value—a discussion of the Rogers tests, p. 201-11. 14. H. P. Pettit and Flora E. Balck: What are reasonable things which the colleges may expect from high schools in mathematics, p. 215-21. 15. A. W. Clevenger: Observations on the high school teaching of foreign languages, p. 224-30. 16. A. A. Harding: The high school band: its personnel and organization, p. 248-54. 17. P. E. Beltling: The educational value of physical education, p. 256-60. 18. Henry Crew: The bearing of recent research on the teaching of elementary physics, p. 268-72.

458. **National association of secondary school principals.** Fourth yearbook. Pub. by the Association, 1920. 114 p. 8°. (H. V. Church, secretary, Cicero, Ill.)

Contains: 1. O. W. Caldwell: Some factors in training for leadership, p. 2-13. 2. E. W. Butterfield: The program of the small high school, p. 17-22. 3. Report of the committee on social studies in the high school, p. 29-43. 4. C. O. Davis: Training for citizenship in the North central association of secondary schools, p. 45-64. 5. C. O. Ruggles: Social and business studies in secondary schools, colleges, and universities, p. 71-80. 6. W. D. Reeve: Homogeneous grouping of high school students by means of psychological tests, p. 81-94. 7. A. Wanner: The industrial co-operative course of study in the York high school, York, Pennsylvania; its scope and character, p. 94-96.

459. **Bobbitt, Franklin.** The actual objectives of the present-day high school. School review, 29: 256-72, April 1921.

A study based on the daily programs of classes, conducted during the first semester of the school year 1920-21, of 51 high schools in various parts of the United States. Discusses the amount of effort made to achieve vocational, civic, and health objectives, and the worthy use of leisure.

460. **Edmonson, J. B.** Some tentative standards for junior high schools, with criticisms. American school board journal, 62: 33-34, February 1921.

Reports on the work of the Committee on the classification of six-year, senior and junior high schools of the North central commission on secondary schools.

461. **Foster, Herbert H.** Principles of teaching in secondary education. New York, Chicago [etc.] Charles Scribner's sons [1921] xviii, 367 p. 12°.

Makes a protest against formalism and mechanism, on the one hand, and unsympathetic procedure on the other. The point of view is functional, in that in each step there is a procedure from discovery of aim to adaptation of process to aim. Holds that certain general principles of method are valid in all of the studies of the high school curriculum.

462. **Lull, Herbert G. and Wilson, H. B.** The redirection of high-school instruction. Philadelphia, London [etc.] J. B. Lippincott company [1921] 286 p. tables, diagrs. 12°. (Lippincott's school project series, ed. by W. F. Russell)

The central problem announced for this book is to discover and organize the functional elements of high-school instruction. The view that the school is an instrument of social interpretation, social adjustment, and social control is maintained throughout.

463. **Morrison, Henry C.** Studies in high school procedure: II. Half learning; III. Mastery. School review, 29: 106-18, 182-97, February, March, 1921.

No. II discusses the theory upon which the various high-school courses are set and administered. Contends that the whole process of administration tends to be a thing apart from teaching and learning. The final paper of the series emphasizes the value of the concept of mastery, the old notion that what is worth doing at all is worth doing well.

464. **Mort, Paul B. and Derricks, Robert K.** An accounting of general values in the small high school curriculum. School review, 29: 119-34, February 1921.

A study based on replies from a questionnaire sent in 1916-17 to the 874 graduates of the 10 township high schools in Wabash county, Indiana. Emphasizes the effects of social affairs, athletics, association with teachers and students, citizenship trend of the system of school government, scholarship contests, and good will tendency of grading and recitation systems.

### NORMAL TRAINING.

465. **Allen, Bessie M.** A two-year normal school curriculum for the training of teachers of home economics. Educational administration and supervision, 7: 85-90, February 1921.

466. **Almack, John C.** Teacher training in Oregon high schools. Eugene, Oreg., University of Oregon, 1921. 61 p. charts, tables. 8°. (Commonwealth review of the University of Oregon, n. s. vol. III, no. 1, January 1921)

467. **Bagley, William C.** The nation's debt to the normal schools. Educational administration and supervision, 7: 195-204, April 1921.

Address at a dinner given by the National council of normal-school presidents and principals to Members of Congress, February 24, 1921.

A plea for the establishment and extension of normal schools.

468. **Beatty, Willard W.** A normal school course in sociology introductory to work in the social studies. American journal of sociology, 26: 573-80, March 1921.

Course in civic sociology used in the State normal school, San Francisco, Calif.

469. **Burgess, W. Randolph.** The education of teachers in fourteen states. Journal of educational research, 3: 161-72, March 1921.

A comparison of the records of 14 states for 1918 shows that Massachusetts has the largest per cent of trained teachers. The eastern states in general show high records and the southern and middle western states lower records.

470. **Burnham, William H.** A survey of the teaching of mental hygiene in the normal schools. Mental hygiene, 5: 19-45, January 1921.

Study based on replies to a questionnaire sent by the National committee for mental hygiene to the public and private normal and training schools throughout the country. Gives suggestions for a course, and emphasizes its importance to the teacher.

471. **Fontaine, Mary B.** A program for the training of teachers of English composition for junior high schools. Educational administration and supervision, 7: 205-16, April 1921.

Proposes to separate the teaching of composition from the teaching of literature.

472. **Gray, William S.** The use of a time-record blank in the standardization and supervision of student-teaching courses. Educational administration and supervision, 7: 121-32, March 1921.

Emphasizes the value of time-record blanks to general supervisors.

473. **Hall-Quest, Alfred L.** The training of teachers to supervise study. Educational administration and supervision, 7: 160-65, March 1921.

Describes the methods of cooperative training of teachers in the University of Cincinnati; a plan whereby fifth-year students, that is, students who have received their A. B. degree, are assigned to half-time teaching in the elementary and high schools of the city.

474. **Jacobs, Charles L.** An evening course for the training of trade teachers. Educational administration and supervision, 7: 28-38, January 1921.
475. **Kirkley, J. A.** Virtues and defects of normal school training as seen by graduates of two, five, and ten years' service. Educational administration and supervision, 7: 103-10, February 1921.  
Sums up the outstanding points of weakness in normal-school training as follows: (a) Teaching the principles of education too abstractly; (b) giving courses in a superficial manner; (c) devoting relatively too much time to *how* to teach and not enough time to *what* to teach; (d) a failure to make such differentiations in the work as will prepare the teacher to teach expertly well in some one field.
476. **Manchester, O. L. and Blair, Francis G.** The normal school crisis. Issued by Francis G. Blair, superintendent of public instruction. Springfield, Ill., 1921. 84 p. diagrs. 8°.
477. **Patterson, Herbert.** The place of observation in practice-teaching courses. Educational administration and supervision 7: 190-94, April 1921.  
Says that the preparation of teachers should be in accord with the psychology taught in our classrooms and laboratories.
478. **Pickett, Lalla H.** Observation and student teaching in summer sessions. Educational administration and supervision, 7: 39-50, January 1921.  
Says that adequate facilities should be provided for doing work of as high standard and under as typical school-room conditions as the practice teaching of the regular year.
479. **Prichard, Mahala D.** A suggested course of lessons in social relations for prospective teachers. Educational administration and supervision, 7: 175-80, March 1921.
480. **Symonds, Percival M.** Subject matter courses in mathematics for the professional preparation of junior high school teachers. Educational administration and supervision, 7: 61-76, February 1921.  
Presents a constructive program in mathematics, together with the present status of the mathematical preparation of teachers in normal schools in various parts of the country.

### TEACHERS' SALARIES AND PROFESSIONAL STATUS.

481. **American association of university professors.** Annual meeting. Constitution and list of members. Report on Washburn college. Boston, Mass., American association of university professors, 1921. 137 p. 8°. (*Its Bulletin*, vol. VII, nos. 1-2, January-February 1921) (H. W. Tyler, secretary, 222 Charles River road, Cambridge, Mass.)
482. **Arnett, Trevor.** Teachers' salaries in certain endowed colleges and universities in the United States. New York city, General education board, 1921. 42 p. chart, tables. 8°. (Publications of the General education board. Occasional papers, no. 7)  
An investigation of the amount of salaries paid to teachers in 1919-20 in 249 institutions of higher education, as compared with salaries paid in the same institutions in 1914-15.
483. **Carnegie foundation for the advancement of teaching.** Fifteenth annual report of the president and of the treasurer. New York city, 1920. vi, 171 p. 4°. (Clyde Furst, secretary, 522 Fifth avenue, New York)  
CONTENTS.—Pt. I. The financial administration of the trust.—Pt. II. The work of the year.—Pt. III. The development of the contractual plan of old age annuities.—Pt. IV. Action of various colleges and universities.—Pt. V. Development of pension systems and progress of pension legislation.—Pt. VI. Educational enquiry.—Pt. VII. De mortuis.  
Part III comments on the report of the committee of the Harvard university faculty upon the Teachers insurance and annuity association of the Carnegie foundation.



484. **Chamberlain, Arthur H.** Urgent financial needs of California school system as related to teacher-training facilities and the office of county superintendent of schools. [San Francisco, Calif., 1921] 11 p. graphs, tables. 8°. (Bulletin of the California teachers' association, January 1921)  
Advance reprint from Sierra educational news for February 1921.
485. **Cook, William A.** Rise and significance of the American federation of teachers. *Elementary school journal*, 21: 444-60, February 1921.  
An historical and critical study of the American federation of teachers.
486. ——— Uniform standards for judging teachers in South Dakota. *Educational administration and supervision*, 7: 1-11, January 1921.  
Evaluating the services of teachers by means of rating cards. Gives samples of cards.
487. **Hill, C. W.** The efficiency ratings of teachers. *Elementary school journal*, 21: 438-43, February 1921.  
Study based on rating scales in use in various cities of the United States. Says that an increasing number of school administrators are making use of some definite rating plan.
488. **Kent, Raymond A.** What should teacher-rating schemes seek to measure? *Journal of educational research*, 2: 802-7, December 1920.  
Presents a plan for measuring a teacher's merit as a professional worker.
489. **Malloch, J. M.** What is really the matter with the teaching profession? *Western journal of education*, 27: 1-2, January 1921.  
The trouble with the teaching profession is the lack of a standard of achievement.
490. **National Catholic welfare council. Bureau of education.** . . . Laws and regulations relative to certification of teachers. Washington, D. C., 1921. 10 p. 75 fold. tables. 8°. (Bulletin, 1921, no. 1)  
Abridged from a manuscript prepared by Katherine M. Cook, of the United States Bureau of education.
491. **Wagner, C. A.** The construction of a teacher rating scale. *Elementary school journal*, 21: 361-66, January 1921.  
A criticism of the scale prepared by Prof. H. O. Rugg, in *Elementary school journal* for May 1920; and the presentation of an alternative scale by the writer. Emphasizes the use of "suggestions" as the unit for the measurement of teaching qualities.
492. **Webb, L. W.** Educational research and statistics. One element to be considered in measuring effective teaching. *School and society*, 13: 206-09, February 12, 1921.  
Presents data to prove that the habits and methods by which students work should be considered in measuring effective teaching.
493. **Williams, L. A.** Teaching as a profession. *High school journal*, 4: 81-83, February 1921.  
The writer shows how there is no sphere of human activity which teaching does not touch.

## HIGHER EDUCATION.

494. **Association of American colleges.** The preliminary report of the Association commission on the organization of the college curriculum. Chicago, Ill., 1921. 60 p. charts. 8°. (Association of American colleges bulletin. vol. VII, no. 2, March 1921) (R. L. Kelly, executive secretary, 111 Fifth avenue, New York city)  
Contains: 1. Samuel Lough: Introductory statement, p. 5-8. 2. Clyde Furst: College entrance requirements, p. 9-31. 3. R. L. Kelly: The college curriculum, p. 31-60.  
Dr. Kelly's paper is also published in *Christian education*, 4: 17-46, March 1921.

495. **Association of American universities.** Journal of proceedings and addresses of the twenty-second annual conference, held at Columbia university November 18 and 19, 1920. [Chicago, Ill.] Pub. by the Association [1921] 95 p. 8°.

Contains: 1. C. H. Haskins: Cooperation in research in the humanities, p. 35-40. Discussion, p. 40-44. 2. Frank Aydelotte: The record of the American Rhodes scholars, p. 44-48. 3. John Johnston: Cooperation between universities and industry, p. 51-60. 4. F. B. Jewett: Cooperation in research with private enterprises from the standpoint of industry, p. 60-68. Discussion, p. 68-70. 5. F. J. E. Woodbridge: The social environment of the graduate student, p. 71-78. Discussion, p. 78-81. 6. A. H. Lloyd: Fellowships—with special consideration of their relation to teaching, p. 82-91.

496. **National conference committee on standards of colleges and secondary schools.** Minutes of the fourteenth conference . . . held at New York, N. Y., March 10, 1921. [Middletown, Conn., Press of Pelton & King, inc., 1921] 10 p. 8°. (Frank W. Nicolson, secretary, Wesleyan university, Middletown, Conn.)

497. **Athena; a year-book of the learned world.** The English speaking races. Ed. by C. A. Ealand. London, A. & C. Black, ltd., 1920. viii, 392 p. 8°.

498. **Boston university.** Boston university world war record. [Boston] The Trustees of the University [1920] 347 p. ports. 8°.

499. **Boyd, P. P.** Extra-curricula activities and scholarship. School and society, 13: 158-66, February 5, 1921.

Activities of a student outside of the classroom can be directed so as to increase his possibilities as a scholar, a citizen, and a man.

500. **Bruce, Philip Alexander.** History of the University of Virginia, 1819-1919; the lengthened shadow of one man. Centennial ed. Vol. 3-4. New York, The Macmillan company, 1921. 2 v. fronts. 8°.

These volumes record the history of the University of Virginia during the period 1842-1904.

501. **Burgess, B. W.** The record of the American Rhodes scholars. American Oxonian, 8: 1-36, January 1921.

The type of men who have been selected; their record at Oxford; and what they have done since their return home.

502. **Capen, Samuel P.** The dilemma of the college of arts and science. Educational review, 61: 277-85, April 1921.

Criticises the prevailing methods of instruction, and emphasizes the necessity of vitalizing the college subjects. In place of the devices now in vogue relating to entrance requirements, the writer would substitute as fast as possible searching individual examinations designed to test the capacity, achievement, and intellectual power of the student.

503. ———. Preliminary suggestions for a self-survey of state universities. Lexington, Ky., Office of the secretary-treasurer, F. L. McVey, University of Kentucky, 1921. 12 p. 8°. (Bulletin of National association of state universities, March 1921)

504. **Clark, Thomas Arkle.** Discipline and the derelict; being a series of essays on some of those who tread the green carpet. New York, The Macmillan company, 1921. 203 p. 12°.

Some experiences of a dean of men in dealing with college undergraduates.

505. **Judd, Charles H.** The American experiment of free higher education. School review, 29: 94-105, February 1921.

Says that America has launched in its program of a tax-supported higher education an experiment of such magnitude that there is some difficulty in seeing it through. Suggests that the privileges of the high school be steadily curtailed in the cases of all students who cannot be induced to make serious use of them.

506. **Lennard, Reginald.** Some problems of university education. Nineteenth century, 89: 301-6, February 1921.  
A critical study of higher education as revealed in the Universities of Oxford and Cambridge, England.
507. **Magruder, William T.** The junior college as a relief. Educational review, 61: 286-97, April 1921.  
A study based on bulletin 1919, no. 85, of the U. S. Bureau of Education, entitled "The junior college," by F. N. McDowell.
508. **Meiklejohn, Alexander.** The liberal college. Boston, Marshall Jones company, 1920. ix, 165 p. 8°.  
First of a series of volumes by Amherst men, to be known as "The Amherst books," issued in connection with the centenary of Amherst college in 1921.  
A collection of papers and addresses dealing with the liberal college, and expressing the conviction that liberal study strengthens and enriches the lives of individual men and of groups of men.
509. **Miller, William O.** Administrative coordination. Educational review, 61: 310-19, April 1921.  
Discusses the development of scientific business practises in our colleges and universities. Says that it is essential "to relieve educational administration of all duties incident to operation, and that within operation itself, accounting, office practise, and other classifiable duties and responsibilities should be properly segregated."
510. **Myers, Joseph S.** Present day college problems. Educational review, 61: 320-33, April 1921.
511. **Mendenhall, Thomas C., ed.** History of the Ohio state university. Vol. I, 1870-1910, by Alexis Cope. Columbus, The Ohio state university press, 1920. xxix, 612 p. plates. 8°.  
To be completed in three volumes.
512. **North Carolina. University.** The state university and the new South; being the proceedings of the inauguration of Harry Woodburn Chase as president of the University of North Carolina. Chapel Hill, N. C., April 28, 1920. 104 p. 8°.  
Contains: 1. A. L. Lowell: Formalism in education, p. 26-35. 2. J. G. Hibben: Idealism in education, p. 36-39. 3. C. R. Mann: Professional training and service, p. 40-50. 4. H. W. Chase: Inaugural address, p. 52-68.
513. **Pyre, James F. A.** Wisconsin. New York [etc.] Oxford university press, 1920. 419 p. plates. 8°. (American college and university series)
514. **Schoell, Franck L.** L' université de Chicago. Revue internationale de l'enseignement, 41: 29-43, January-February 1921.
515. **Showerman, Grant.** Intellect and the undergraduate. School and society, 13: 241-51, February 26, 1921.
516. ——— The university brickyard. Weekly review, 4: 126-27, February 9, 1921.  
Discusses academic freedom.
517. **The University of Chicago in 1921.** Chicago, Ill., University of Chicago press [1921] 32 p. plates. 12°.  
A descriptive booklet intended as a statement to the alumni, having as preface "A message from the president," Harry Pratt Judson.
518. **Vincent, George E.** Yale's new president and his task. American review of reviews, 63: 390-402, April 1921.  
A sketch of James Rowland Angell in relation to the duties which will devolve upon him as president of Yale university.

519. **Walters, Raymond.** Statistics of registration of thirty American universities for 1920. School and society, 13: 121-28, January 29, 1921.  
A detailed account of the large enrollments of thirty American universities.
520. **Warren, Sir Herbert.** The modern humanities at Oxford. Nineteenth century, 89: 354-63, February 1921.  
Defines the word "humanities" as regards its implications in higher education. Discusses the field covered by the modern humanities.
521. **West, Paul V.** What do college students know? Atlantic monthly, 127: 391-93, March 1921.

## RESEARCH.

522. **Evans, John W.** Scientific research and the universities. Contemporary review, 119: 346-53, March 1921.  
The English universities and scientific research work described.

## SCHOOL ADMINISTRATION.

523. **Alexander, Carter.** Comparative state school aids. Elementary school journal, 21: 522-28, March 1921.  
Says that the poorest way to distribute state school revenue is on a school-census basis. Far better results will be secured by extending the special state aid provisions already in vogue in five states of the Union.
524. **Ayres, Leonard P.** The increasing efficiency of our city school systems. Elementary school journal, 21: 416-23, February 1921.  
Study based on data gathered by the Russell Sage foundation in 1920. The results show the general improvement that has taken place in the effectiveness of school systems in carrying their pupils through the grades. The proportion of pupils reaching the eighth grade is larger than it was in 1911, when a similar study was undertaken by the Foundation.
525. **Bagley, W. C.** Reports on the New Mexico state educational institutions and the general education system of New Mexico. With letters from Prof. E. P. Cubberley and Prof. Geo. D. Strayer to the New Mexico special revenue commission. Santa Fe [Printed by The Santa Fe New Mexico pub. corp.] 1921. 62 p. 8°.
526. **Bliss, Don C.** Local school surveys. Educational review, 61: 93-99, February 1921.  
Contents that the best results are attained when the school survey is instigated by those upon whom the responsibility rests for initiating the necessary steps to accomplish the desired changes. Discusses methods for determining efficiency of school system.
527. **California. Legislature.** Report of the special Legislative committee on education, as authorized by Senate concurrent resolution no. 21 by the forty-third session of the Legislature of California. Sacramento, California state printing office, 1920. 96 p. charts, maps. 8°.  
Chairman of committee: Herbert C. Jones.  
Following an introduction, the report is presented under the following headings: 1. State educational organization. 2. County educational organization. 3. The problem of teacher training. 4. High school and junior college. 5. A better equalization of funds. The pamphlet concludes with a Summary of needed legislation.
528. **Churchill, Thomas W.** Financial independence of school systems. Journal of the New York state teachers' association, 7: 263-71, January 1921.  
Read before Associated school boards and trustees, Utica, December 3, 1920.
529. **Claxton, P. P.** The county superintendent of schools. School life, 6: 3-4, February 15, 1921.  
Gives a table of salaries of county superintendents for 1920.

530. **Claxton, P. P.** Educational inequalities in a typical district-unit state. School life, 6: 3-4, February 1, 1921.  
Discusses variation in Missouri counties in tax rate, school term, salaries, and qualifications of teachers, and suggests remedies.
531. ——— Organization of state departments of education. School life, 6: 1-2, 10-11, January 15, 1921.  
Accretion is usual process of growth. Nonpartisan board of education should perform legislative functions.
532. Legislative suggestions approved by State superintendent of schools, representatives of the Missouri state teachers' association, and program committee of the conference on education called by Gov. Arthur M. Hyde. January 6 and 7, 1921, Jefferson City, Mo. 43 p. 8°.
533. **Russell, William F.** One step toward a scientific method in the distribution of school funds. Educational administration and supervision, 7: 181-89, April 1921.  
Says that the purpose of the paper is to show that the distribution of school funds for specific purposes is necessary to establish state control. Once established it may be used for other purposes.
534. **Sears, J. B.** The literature and problems of public school finance. Educational administration and supervision, 7: 133-50, March 1921.  
Contains an elaborate and valuable bibliography of the subject in all its phases, p. 139-50.
535. **Texas.** Department of education. Report on education in Texas and recommendations made to the governor and the thirty-seventh Legislature, by Annie Webb Blanton, state superintendent of public instruction. [Austin] The Department of education, state of Texas [1921] 60 p. 8°.  
CONTENTS.—Measures recommended by the governor's committee on education.—Measures for which the endorsement of the committee on education was not asked.—Brief discussion of the necessity for measures recommended.—Report of governor's committee on education.—Statistical reports.
536. **Washington (State) Public school administrative code commission.** Report of the Public school administrative code commission of the state of Washington, delivered to the governor and the legislature at Olympia, Wash., January 11, 1921. Designed to accompany Senate bill no. 10. Olympia, F. M. Lamborn, public printer, 1921. 118 p. diagrs., maps, tables. 8°.  
Members of the Public school administrative code commission: W. J. Sutton, chairman; A. S. Burrows, secretary; W. M. Kern, Alfred Lister, Mrs. Mark E. Reed.

## SCHOOL MANAGEMENT.

537. **Church, H. V.** Attendance procedure. School review, 29: 273-77, April 1921.  
Describes an attendance card used in the J. Sterling Morton high school, Cicero, Ill.
538. **Cranor, Catherine T.** A self-scoring card for supervisors as an aid to efficiency in school work. Educational administration and supervision, 7: 91-102, February 1921.  
The aim of this score-card is not to measure the efficiency of the supervisor's work, but to call to her attention certain desirable qualifications that may result in higher ideals and standards of educational efficiency among supervisors. Gives a bibliography.

539. **Johnson, Franklin W.** The schedule of recitations. School review, 29: 216-28, March 1921.
540. **McClure, Worth.** The functions of the elementary school principal. Elementary school journal, 21: 500-14, March 1921.  
Study based on replies to questionnaires sent to the elementary school principals of Seattle, and to university professors of administration, etc. The purpose of the investigation was to answer two questions: (1) What are the functions of the elementary school principal in theory and in practice? (2) What is their relative importance in theory and in practice?
541. **Müncheberg, G.** Die schülerselbstverwaltung. Monatschrift für höhere schulen, 20: 30-38, January-February 1921.  
On student self-government in present-day Germany.

### SCHOOL BUILDINGS AND GROUNDS.

542. Architect and engineer, San Francisco, Calif. vol. LXIV, no. 3, March 1921.  
Contains: 1. C. K. Sumner: Some neglected aspects of school architecture, p. 47-56. Views and plans of typical California school buildings, p. 57-67. 2. J. J. Donovan: Architecture, planning, and construction of schools, p. 68-97.  
These articles are both fully illustrated. The second is an advance proof of Chapter II of Mr. Donovan's new book on School architecture, just published by the Macmillan company.
543. **Hartwell, E. C.** The Buffalo school building program. American school board journal, 62: 52-58, February 1921.  
Description of eighteen new school buildings to be built.
544. **National committee for chamber of commerce cooperation with the public schools.** Know and help your schools. Second report. An interpretation of inquiry no. II relating to school buildings and grounds, enrollment and size of classes in the national survey of urban public schools, directed by the National committee for chamber of commerce cooperation with the public schools and the American city bureau. New York, Chicago [etc.] American city bureau, 1921. 63 p. charts, tables. 8°. Executive secretary of National committee: Fred A. Richardson, secretary American city bureau, New York, N. Y.
545. **Williams, L. A.** . . . The construction of schoolhouses. Chapel Hill, 1920. 46 p. 8°. (The University of North Carolina record, Sept., 1920, no. 180. Extension series no. 38)  
A companion volume to the above is Design and improvement of school grounds, by W. C. Coker and Eleanor Hoffmann, published by the University of North Carolina, Chapel Hill, N. C., 1921. 48 p. illus., plates. 8°. (Bureau of extension bulletin. Special series no. 1)

### SCHOOL HYGIENE AND SANITATION.

546. **American school hygiene association.** Proceedings of the twelfth congress. . . . Vol. VIII. Cleveland, February 24-27, 1920. 212 p. 8°. (Harry B. Burns, secretary, Pittsburg, Pa.)  
Contains: 1. Edith M. Walker: Health education in normal schools, p. 19-25. 2. Hiram Byrd: Democratization of hygiene, p. 26-34. 3. Walter J. Multer: Junior Red Cross and school dental ambulance service in rural communities in Nassau county, New York, p. 40-46. 4. H. J. Burkhart: Children's work in the Rochester dental dispensary and schools of Monroe county, p. 46-49. 5. Helen MacMurchy: School health education in Canada, p. 55-60. 6. H. H. Mitchell: The health of working children, p. 60-66. 7. P. A. Surgeon and H. T. White: A suggested plan for systematic sex instruction of the child. p. 77-83. 8. C. W. Crampton: How can physical training be correlated with medical inspection of

schools, p. 88-95. 9. G. E. Jones: What is physical education?, p. 96-109. 10. W. S. Cornell: Modern interpretation and application of school medical inspection, p. 118-127. 11. L. A. Wilkes: Health education in the schools of Bridgeport, Conn., p. 127-131. 12. Emma Smedley: The school lunches in Philadelphia, p. 171-176. 13. K. A. Fisher: School lunches in rural communities, p. 192-198. 14. G. N. Child: Health education in the public schools of Utah, p. 199-201. 15. J. E. Browne: Health education in the schools of Saskatchewan, p. 202-206.

547. Benedict, Francis G. and Hendry, Mary F. The energy requirements of girls from 12 to 17 years of age. Boston medical and surgical journal, 184: 217-22, 257-62, 282-86, 297-300, 329-34, March 3-31, 1921.

Work of the nutrition laboratory of the Carnegie institution of Washington. A study based on experiments made on groups of girls of constant age, selected from various troops of Girl scouts.

548. Bliss, D. C. Malnutrition, a school problem. Elementary school journal, 21: 515-21, March 1921.

Work of the Montclair, N. J., public schools. Open-air classes, school lunches, and campaigns of education as factors in solving the problem of malnutrition.

549. Burgerstein, Leo. Schulhygiene. 4te aufl. Leipzig und Berlin, B. G. Teubner, 1921. 125 p. illus. 12°. (Aus natur und gelsteswelt. 96. band)

550. Christian, Eula G. Health supervision in public schools. American journal of nursing, 21: 454-60, April 1921.

551. Clark, Taliaferro and Butler, Harry B. Children's teeth, a community responsibility; a practical plan for organizing protective and remedial measures. Washington, Government printing office, 1920. 19 p. plates. 8°. (Reprint no. 622 from the Public health reports. November 19, 1920)

552. Douglass, Aubrey A. Health education in the junior high school. Educational administration and supervision, 7: 12-21, January 1921.

Says that a comprehensive program of health should include training in personal hygiene and in community hygiene.

553. Fones, Alfred C. Mouth hygiene for school children. Modern medicine, 3: 119-22, February 1921.

Work of the school dental clinics of Bridgeport, Conn.

554. Froeberg, Sven. Effects of smoking on mental and motor efficiency. Journal of experimental psychology, 3: 334-46, October 1920.

Study based on examination of students of elementary psychology at the University of Michigan. Comes to conclusion that except when used in excess, by adolescents, or persons suffering with certain nervous troubles, there is no scientific evidence that the moderate use of tobacco in smoking produces any either beneficial or injurious mental effect sufficiently great to be measured.

555. Green, John. Hygiene of the eye. Modern medicine, 3: 149-54, March 1921.

Among other things discusses myopia and education, examination of eyes of school children, etc.

556. Greig, Mary. Dietary hygiene as taught by museum methods. Modern medicine 3: 111-15, February 1921.

Describes the traveling loan exhibit of dietary hygiene, prepared by the American museum of natural history, New York city, for the use of public schools in New York. Illustrated.

557. Irwin, R. B. Sight-saving classes in the public schools. Cambridge, Mass., Harvard university [1920] 31 p. illus. 8°. (Harvard bulletins in education, no. 7, November 1920)

558. **Rich, Katherine B.** Nutritional work in public schools. *Journal of the American medical association*, 76: 998-99, April 9, 1921.

"Final report of experimental work done under the supervision of the board of education in the public schools of Chicago." Fifty per cent of the school children that were weighed and measured were found to be below normal in height and weight for age, or in weight for height.

559. **Strode, George K.** Pennsylvania essays to prevent dental caries in the school child. *Modern medicine*, 3: 50-52, January 1921.

Dental clinics in public schools of Pennsylvania. Illustrated.

560. Symposium on health supervision in colleges. *American journal of public health*, 11: 309-51, April 1921.

Contains: 1. H. Emerson, L. B. Chenoweth, F. C. Balderry and C. E. Case: Education in health at Cornell university, 1919-1920, p. 309-26. 2. John Sundwall: Supervision of health in colleges and universities, p. 327-34. 3. R. T. Legge: Students' infirmary, University of California, p. 335-38. 4. P. K. Holmes: Department of hygiene and public health at the University of Kentucky, p. 338-40. 5. F. E. Williams: Mental hygiene and the college student, p. 341-51.

### PHYSICAL TRAINING.

561. **American physical education association, western district.** Proceedings of the third annual convention, Berkeley and Oakland, California, July 14-17, 1920. *Mind and body*, 27: 411-26, February 1921.

562. **National collegiate athletic association.** Proceedings of the fifteenth annual convention, held at Chicago, Ill., December 29, 1920. 100 p. 8". (Frank W. Nicolson, secretary-treasurer, Wesleyan university, Middletown, Conn.)

Contains: 1. P. B. Pierce: President's address, p. 53-59. 2. J. L. Knox: Scouting, p. 60-67. 3. H. J. Koehler: The new athletic system at West Point, p. 68-75.

563. **Affleck, G. B.** A minimum set of tentative physical standards for children of school age. *Pedagogical seminary*, 27: 324-53, December 1920.

A study dealing with height, weight, nutrition, teeth, motor development, lung capacity, and forearm strength of children of school age. Bibliography: p. 347-53.

564. Aims, scope, and relations of physical training. *School life*: 6: 1-2, 15, February 1, 1921.

565. **Hoernig, Lena.** Corrective physical activities. *Mind and body*, 27: 401-10, February 1921.

Read at the Physical training section, State educational association of Missouri, Kansas City, Mo., November 1920. The scope of the paper concerns the application of physical activities to pathologic conditions of school children.

566. **Naylor, Herbert E. and Temple, Mollie.** Modern physical education including exercises with and without apparatus, marching, games, etc. With series of tables and over 200 illustrations. London, A. Melrose Ltd., 1920. 317 p. illus. 12".

567. **Sargent, D. A.** The physical test of a man. *School and society*, 13: 128-35, January 29, 1921.

The article describes the new test of estimating man power.

568. **Todd, Ernest McC.** Provision in the high school curriculum for correcting physical defects. *Journal of educational research*, 3: 23-34, January 1921.

Work accomplished in the Country day school of Kansas City, Mo. Presents a course of study in physical education.



## PLAY AND RECREATION.

569. **Cleveland foundation. Survey committee.** Cleveland recreation survey. A community recreation program. Cleveland, Ohio, The Cleveland foundation committee [1920] 116 p. 12°.

Contains: Introduction, Origin and scope of the recreation survey; Summary of the survey reports; An interpretation of the survey; A community recreation program for Cleveland.

570. **Dymond, J. A. G.** Scouting and the adolescent, with special reference to secondary schools. Manchester, At the University press; London, New York [etc.] Longmans, Green & co., 1920. xiv, 81 p. 12°.

Includes a foreword by Prof. J. J. Findlay, and a memoir of the author by F. J. Stafford. Bibliography: p. 79-81.

571. **Jessop, Gilbert and Salmond, J. B., ed.** The book of school sports. London, Edinburgh and New York, T. Nelson and sons, ltd. [1920] 291 p. front., illus., plates. 12°.

572. **Playground and recreation association of America.** Officers of recreation commissions, boards, and associations, and tables showing playground and recreation center statistics for 1920. Playground, 15: 21-59, March 1921.

573. **Shreves, Rolland M.** Play and education. Education, 41: 349-60, February 1921.

Discusses play in Greek and Roman education, scholasticism and the play spirit, play in present day education, and the playground as an integral part of the schools. Gives helpful list of references.

574. **Trevelyan, Janet Penrose.** Evening play centres for children; the story of their origin and growth. With a preface by Mrs. Humphry Ward. London, Methuen & co., ltd. [1920] 183 p. front., plates. 12°.

## SOCIAL ASPECTS OF EDUCATION.

575. **Charters, W. W. and Greene, James H.** A study of the factors in the efficiency of boys' and girls' clubs. School science and mathematics, 21: 335-41, April 1921.

Statistical studies of boys' and girls' clubs in Illinois made during the club seasons of 1917 and 1918.

576. **Corson, H. K.** The right kind of parent-teachers' association. American school board journal 62: 48-49, 121, February 1921.

Description of the work done by the parent-teachers' association connected with the Henry L. Dawes school at Pittsfield, Mass.

577. **Harrison, Shelby M.** Social conditions in an American city; a summary of the findings of the Springfield survey. New York, Russell Sage foundation, 1920. xii, 439 p. front., illus. 8°.

Summary of report on the public schools of Springfield, Ill., by Leonard P. Ayres: p. 35-73.

578. **Hart, Joseph K.** Minority opinion in education. Survey, 45: 761-62, February 26, 1921.

Discusses academic freedom among teachers. Reviews the debate between Prof. David Snedden, of Teachers' college, and Prof. Scott Nearing, of the Rand school, both of New York city; the subject of which was "Freedom of teaching in the social sciences." This debate, held in New York, on January 5, was arranged by the New York academy of public education.

579. **Kelly, M. Clyde.** The community capitol; a program for American unity. Pittsburgh, The Mayflower press, 1921. 325 p. plates. 12°.

The community capitol which is the theme of this book is to be effected by the coordination of the neighborhood-uniting public school with the world-integrating postal system.

580. Page, Frank B. The school and the community. *Elementary school journal*, 21: 297-303, December 1920.

Relating the school to the industrial activities of a community.

581. Smith, C. F. and Fretwell, E. K. Horace Mann studies in elementary education. Clubs for young boys. *Teachers college record*, 22: 12-30, January 1921.

Gives the programs of the clubs of the Horace Mann Elementary school as they have been developed by the boys themselves.

582. Snedden, David. Liberty of teaching in social sciences. *School and society*, 13: 181-91, February 12, 1921.

From an address made before the New York Academy of public education, January 5, 1921.

583. ——— Sociological determination of objectives in education. Philadelphia and London, J. B. Lippincott company [1921] 322 p. 12°.

The writer of this book has undertaken in each chapter to do at least three things—first, to search for certain sources in the social sciences or in experience from which to derive standards of examination for the "faith objectives" now controlling in the department dealt with; second to criticize those faiths which have probably come to have the injurious characteristics of superstitions; and third, to propose, tentatively, certain new objectives for examination.

584. Steiner, Jesse F. Education for social work. *American journal of sociology*, 26: 475-518, 601-17, January, March 1921.

Discusses the nature of social work; educational preparation and basis; technical courses of instruction, etc. Second paper emphasizes the importance of the case method in schools of social work. Discusses the place of field work in the course of study. To be continued.

585. Sterry, Nora. The civic background of a school. *Survey*, 45: 599-601, January 22, 1921.

A discussion of the causes of retardation that lie outside the classroom. A survey made during the year 1919-20 of the pupils of the Macy street school of Los Angeles, California.

586. Williams, Joseph T. Education in recent sociology. *Education*, 41: 421-31, 500-9, March, April 1921.

First and second papers in a series of five which are to discuss the writings of four American sociologists—Lester F. Ward, Charles H. Cooley, Arthur J. Todd, and Charles A. Ellwood. One article is to be devoted to each of these four men, and a fifth will deal with a summary and some suggestions for an educational sociology.

## CHILD WELFARE.

587. Bary, Helen V. The trend of child welfare work. *North American review*, 213: 404-501, April 1921.

Says that the most serious problem of child labor today is that of agricultural work. "Rural child labor in vast areas of the United States today carries with it the virtual denial of education."

588. Koch, F. J. Little Jack Roosa comes home from school. *Child-welfare magazine*, 10: 124-26, February 1921.

A unique course introduced in the Mid-West public schools for giving children new interest in home.

589. Loeb, Sophie Irene. Everyman's child. New York, The Century co., 1920. 286 p. front., plates. 12°.

590. Milnes, Nora. Child welfare from the social point of view. London & Toronto, J. M. Dent & sons, ltd., 1920. 243 p. 12°.

## MORAL AND RELIGIOUS EDUCATION.

591. **Catholic educational association.** Report of the proceedings and addresses of the seventeenth annual meeting, New York, N. Y., June 28-July 1, 1920. Columbus, Ohio, Catholic educational association [1920]. 643 p. (Catholic educational association bulletin, vol. 17, no. 1, November 1920) (Rev. Francis W. Howard, secretary, 1651 East Main street, Columbus, Ohio)
- Contains: 1. W. D. Guthrie: The federal government and education, p. 35-45. 2. J. A. Burns: A constructive policy for Catholic higher education, p. 46-56. 3. W. J. Kerby: The teaching of sociology in Catholic women's colleges, p. 158-8; Discussion, p. 158-60. 4. E. J. McGoldrick: Our rural schools and their maintenance, p. 202-10. 5. E. V. O'Hara: The rural problem in its bearing on Catholic education, p. 282-89. 6. J. A. Waldron: Standards or tests by which the superintendent may judge of the efficiency of his schools, p. 283-95. 7. E. A. Pace: Development of the Catholic sense, p. 354-63.
592. **Bieler, Blanche.** Religious education in France. Church school, 2: 250-61, March 1921.
- Describes the three institutions of French Protestant religious education: the Sunday school; the Thursday school; and the Catechumen class.
593. **Crawford, Leonidas W.** Vocations within the church. New York, Cincinnati, The Abingdon press [1920] 211 p. 8°. (The Abingdon religious education texts. Weekday school series)
594. **Fitch, Albert Parker.** What is the present attitude of college students toward organized religion? Journal of religion, 1: 113-28, March 1921.
- Says that the attitude of college students toward organized religion is very far from what we should like it to be, but the responsibility for this is mostly with our own organization. Gives a detailed analysis of the present situation showing that the facts support his position.
595. **Haviland, Mary S.** Character training in childhood. Boston, Small, Maynard & company [1921] 296 p. plates. 12°.
596. **Hayward, Percy R.** Defective training for pre-adolescent boys. Religious education, 16: 19-22, February 1921.
- Discusses some of the maladjustments in adolescence due to faulty methods of training in pre-adolescence. Cooperative work between Sunday school and day school in the ethical education of children.
597. **Hunter, Marie C.** The actual social reactions of children under twelve. Religious education, 16: 10-15, February 1921.
- Data taken from "real life." Presents some of the proper social attitudes for children under twelve.
598. **Knapp, E. C.** The Sunday school between Sundays. New York, Chicago, F. H. Revell company [1920] 143 p. 12°.
599. **Krumbine, Miles H.** A church summer school. Religious education, 16: 87-100, April 1921.
- Work of the summer school conducted by the First Lutheran church, Dayton, Ohio. Discusses among other things the value of week-day religious teaching.
600. **McGiffert, Arthur C.** A teaching church. Religious education, 16: 3-9, February 1921.
- Discusses the teaching function of the church, and the need of teachers who are thoroughly equipped for their work.
601. **Micou, Paul.** Reorganization of religious education in the Episcopal church. Christian education, 4: 3-6, March 1921.
- All the activities of the old boards are now being carried on by departments of the Presiding Bishop and Council.

602. **Munkres, Alberta.** . . . Primary method in the church school. New York, Cincinnati, The Abingdon press [1921] 242 p. front., plates, illus. 12°. (The Abingdon religious education texts. Community training school series)
603. On week-day religious instruction—sources of information. Religious education, 16: 37-41, February 1921.
604. **Poteat, Edwin M.** Christianity and learning. Biblical review, 6: 36-40, January 1921.
605. **Stewart, Joseph S.** Religious life in state institutions of the South. High school quarterly, 9: 68-74, January 1921.  
Presents extracts from letters received by the editor from the presidents of leading state educational institutions in the South, showing that the religious spirit dominates their faculties and student bodies. Study continued by J. S. Stewart for 44 state institutions in various parts of the country in High school quarterly, 9: 173-76, April 1921.
606. **Sweet, Louis Matthews.** Academic standards in religious education. Biblical review, 6: 50-71, January 1921.  
Says that religious education must raise up religious educators who at once realize and transcend all academic measurements. Man can not live by mind alone.
607. **Tracy, Frederick.** The psychology of adolescence. New York, The Macmillan company, 1921. xi, 246 p. 8°. (Handbooks of moral and religious education, ed. by E. H. Sneath)  
The books of this series are designed to serve as manuals for teachers in the field of moral and religious education. The present work gives an up-to-date summary of investigations of boy and girl nature during adolescence.

#### MANUAL AND VOCATIONAL TRAINING.

608. **Alltucker, Margaret M.** . . . Coördination in part-time education. Issued by the University of California in cooperation with the state board of education. Berkeley, Cal., 1921. 44 p. 8°. (Part-time education series, no. 4. Bulletin no. 3)  
At head of title: University of California. Division of vocational education. Research and service center for part-time schools.
609. **Carpenter, J. E.** Local administration of vocational education. Educational administration and supervision, 7: 226-36, April 1921.  
Presents a plan for the administration of vocational education. Says that the initiation of a program should be in the hands of the superintendent of the school system.
610. **Daniel, Hawthorne.** Arthur E. Morgan's new type of college. World's work, 41: 405-9, February 1921.  
"A civil engineer's revolutionary experiment with Antioch College to produce graduates who will become employers and not employees."
611. **Eaves, Lucile.** Training for store service: the vocational experiences and training of juvenile employees of retail department, dry goods and clothing stores in Boston. Report of investigations made in the research department of the Women's educational and industrial union. Boston, R. G. Badger [1920] 143 p. 8°. "Select bibliography": p. 135-139.
612. Educational review, Moncton and Fredericton, New Brunswick. December, 1920. Vocational education number.  
Contains: 1. R. B. Vaughan: Technical education in Manitoba. 2. F. H. Sexton: Technical education in Nova Scotia—History of thirty years' development. 3. G. A. Boate: Needs of secondary technical education in Nova Scotia. 4. Fletcher Peacock: Vocational education in New Brunswick.

613. Fitzpatrick, Alfred. The university in overalls; a plea for part-time study. Toronto [Press of The Hunter-Rose co., limited] 1921. xvi, 150, xxxi p. plates. 12°.
614. Fuller, Logan B. Manual arts based on home repair. *Journal of educational research*, 3: 173-79, March 1921.  
A study "to determine what problems and processes would be involved in a manual arts course, based upon work which is done or may be done around the home by a handy man with a common carpenter's and painter's tools."
615. Gibson, Carleton B. Industrial education survey, Charleston, S. C. Carleton B. Gibson, director. Charleston, S. C., Walker, Evans & Cogswell co., 1920. 174 p. 8°.  
In making this survey, Carleton B. Gibson, the director, was assisted by Charles H. Winalow, as chief executive in charge of the industrial survey; by Paul S. Lomax, as chief executive in charge of the commercial survey; by Mrs. Henry L. Beck as chief executive in charge of the housekeeping survey. Cooperation in the work was also rendered in an auxiliary and advisory capacity by a general survey committee composed of 21 citizens of Charleston, and by a local sub-committee in each of the three branches of the survey.
616. Goddard, H. W. The portion of the high school program that may advantageously be given to vocational work. *School review*, 29: 278-81, April 1921.  
Contents that undue emphasis should not be laid on vocational studies. It is more important for the student to obtain a broad culture. Says that deficiency in general education is a far more serious handicap to a pupil who leaves high school to enter industrial and commercial pursuits than a lack of vocational efficiency. The latter can be made up without much difficulty.
617. Harmon, Selene A. Why Theodore N. Vail backed O. H. Benson. *World's work*, 41: 517-20, March 1921.  
Says that the child should take part in the business of production in his home community. Vocational and industrial education.
618. McKinney, James. The high school manual training teacher and his job. *Manual training magazine*, 23: 243-46, February 1921.
619. Payne, Arthur Frank. Organization of part-time schools and classes. Minneapolis, Minn., University of Minnesota, 1921. 24 p. 8°. (Bulletin of the University of Minnesota. General extension division. vol. XXIV, no. 1, January 5, 1921)
620. Robison, Emily, comp. Vocational education. 2d and rev. ed., by Julia E. Johnson. New York, The H. W. Wilson company, 1921. lxx, 359 p. 12°. (The handbook series)
621. Sindell, L. J. The evening school in trade or industrial subjects which may be established under the Smith-Hughes act. *Educational administration and supervision*, 7: 22-27, January 1921.  
Advocates the "short-unit" course. Develops a philosophy of evening class organization.
622. Vaughn, S. J. Some overlooked opportunities in education. *School and home education*, 11: 113-16, January-February 1921.  
Industrial education offers opportunities and substantial promises for ambitious young men.

## VOCATIONAL GUIDANCE.

623. Uhrbrock, Richard S. Vocational psychographs. *Education*, 41: 510-15, April 1921.  
Defines "psychography" as the science of making graphic records of mental traits. Emphasizes the importance of mental tests.

## AGRICULTURE.

624. Boyle, James E. Agricultural economics. Philadelphia, London [etc.] J. B. Lippincott company [1921] ix, 448 p. illus. 8°. (Lippincott's college texts. Agriculture)
625. Snedden, David. Our national program for agricultural education: its aims, progress to date, chief of weaknesses, chief strengths. Educational administration and supervision, 7: 151-59, March 1921.  
Emphasises the value of vocational training for the farming callings, and the importance of the home-project method.
626. Storm, Ashley V. and Davis, Kary C. How to teach agriculture; a book of methods in this subject. Philadelphia and London, J. B. Lippincott company [1921] vii, 434 p. front., illus. 8°.

## HOME ECONOMICS.

627. Dickinson, May B. Mother craft instruction for school girls. American journal of public health, 11: 199-202, March 1921.
628. Dodge, B. F. The high school cafeteria as a home economics project. Journal of home economics, 13: 54-58, February 1921.  
A description of the plan tried at Wisconsin university high school.
629. Trilling, Mabel B. . . . Home economics in American schools. Chicago, Ill., The University of Chicago [1920] 122 p. xi pl. diagra. 8°. (On cover: Supplementary educational monographs pub. in conjunction with The School review and The Elementary school journal. Vol. II, October 1920. no. 6, Whole no. 14)  
Ethelwyn Miller, Leona F. Bowman, Florence Williams, Clara B. Knapp, Viola M. Bell, Bertha M. Rugg, joint authors, with the collaboration of Harold O. Rugg.

## COMMERCIAL EDUCATION.

630. Cody, Sherwin. A new message on the teaching of business English. Education, 41: 432-39, March 1921.
631. Montgomery-Campbell, M. National copartnership in commerce and industries. Nineteenth century, 89: 536-49, March 1921.  
A sketch of commercial and industrial education in the United States and Europe.
632. National foreign trade convention. Official report of the seventh National foreign trade convention, held at San Francisco, Cal., May 12-15, 1920. New York City, 1920. 863 p. 8°. (O. K. Davis, secretary, India House, Hanover square, New York, N. Y.)  
Contains: 1. E. L. Bogart: How and why economics should be taught in the high schools, p. 91-99. 2. E. A. Walsh: Adequate school training in commercial history, p. 99-109. 3. Emerson Lucas: Foreign trade geography in our schools and colleges, p. 110-15; Discussion, p. 115-31.

## MEDICAL EDUCATION.

633. American institute of dental teachers. Proceedings of the twenty-seventh annual meeting . . . held at Detroit, Michigan, January 27-29, 1920. 148 p. 8°. (Abram Hoffman, 381 Linwood Avenue, Buffalo, N. Y.).  
Contains: 1. R. W. Bunting: Principles of education as applied to dental teaching, p. 12-17. 2. J. B. Edmondson: Effective teaching from the dental students' standpoint, p. 29-34. 3. S. A. Courtis: Principles of education as brought out by the teaching demonstrations, p. 35-42. 4. Alfred Owre: The necessity for, and the scope of the pre-dental year, p. 56-58.

634. **Association of American medical colleges.** Proceedings of the thirteenth annual meeting held at Chicago, March 1-3, 1920. 199 p. 8°. (Fred C. Zapffe, 3431 Lexington Street, Chicago, Ill.)

Contains: 1. George Blumer: The general practitioner's view of the defects of medical education, p. 5-15. 2. Report on the teaching of physiology, p. 69-82. Supplementary report on the teaching of physiology: Pt. 1. Analysis of replies to questionnaire; Pt. 2. Bibliography on physiology teaching, p. 83-106. 3. Report on the teaching of pathology, p. 136-59.

635. **National league of nursing education.** Proceedings of the twenty-sixth convention held at Atlanta, Georgia, April 12 to April 17, 1920. Baltimore, Williams & Wilkins, 1921. 343 p. 8°. (Alice H. Flash, secretary, Letterman general hospital, Presidio of San Francisco, California)

Contains: 1. S. Lillian Clayton: President's address, National league of nursing education, p. 78-83. 2. Katherine Ink: What can be done to stimulate interest in class-work and keep the student up to a good standard of work, p. 124-29. 3. Kate Douglas: State board examinations: What are their common defects and how can they be improved, p. 140-51. 4. Conference on problems of administration, p. 182-88, 284-41. 5. Jean I. Gunn: Student government, p. 275-81. 6. C. G. Parnall: The national problem of demand and supply of nursing service, p. 283-89. 7. M. Adelaide Nutting: The outlook in nursing, p. 309-23.

636. **Fleischer, M. B. S.** History of dental section, Medical college A. E. F. university, Beaune, Côte d'Or, France. Dental cosmos, 63: 154-60, February 1921.

Establishment and activities of the dental section. Gives branches taught and names of faculty.

637. **Hough, Theodore.** The proper location of the state-supported medical school in Virginia. Charlottesville, Va., The University of Virginia press, 1921. 80 p. illus., plates. 8°. (Alumni bulletin of the University of Virginia. 3d series. vol. xiv, no. 1, January 1921)

A summary of the argument for university location of the single state-supported medical school: p. 71-86.

638. **Mills, C. A.** A course in chemistry for student nurses. American journal of nursing, 21: 461-66, April 1921.

639. **Robertson, John D.** Who shall nurse the sick. American journal of public health, 11: 108-12, February 1921.

Work of the Chicago training school for home and public health nursing. The faculty is selected from the staff of the health department of Chicago.

640. **Selden, Elizabeth.** Hospital and training school administration. American journal of nursing, 21: 399-402, March 1921.

A discussion of the feasibility of the plan in cities where there are universities and medical schools.

641. **Smith, Winford H.** Address to the graduating class, Training school for nurses, Peter Bent Brigham hospital (Boston, Mass.). Boston medical and surgical journal, 184: 367-71, April 14, 1921.

Emphasizes the shortage in the number of graduate nurses. Discusses the trend of nurses' education.

642. **Stewart, Isabel M.** What are the aims of nursing education. American journal of nursing, 21: 308-13, February 1921.

Reviews the history and activities of nursing education.

## ENGINEERING EDUCATION.

643. **Johnston, Clarence T.** The teaching of surveying. Engineering education, 11: 257-70, January 1921.

Incidentally discusses the lack of cultural values in engineering courses. Says that engineers are not given proper or adequate recognition in the formulation and administration of laws which relate to the engineering phases of public business.

644. Taylor, Knox. The engineer and modern engineering education. Princeton alumni weekly, 21: 524-5, March 23, 1921.

The true engineer needs all the study and teaching the best college can give for from five to eight hard years.

645. Wadsworth, Marshman E. The Michigan college of mines in the nineteenth century. Engineering education, 11: 230-56, January 1921.

Interesting historical sketch, with bibliography.

646. Walters, Raymond. The scholastic training of eminent American engineers; a study of a professional group. [New York, 1921] 17 p. tables. 8°.

Reprinted from School and society, 18: 322-29, March 12, 1921.

A study authorized by the American association of collegiate registrars at its 1919 meeting. It represents cooperation of the registrars of 75 colleges, technical schools, and universities in finding the class standing upon graduation of 392 eminent engineers. The results supply evidence of a close correspondence between good scholarship in college and eminence in engineering fields.

### CIVIC EDUCATION.

647. Beatty, Willard W. An experiment in applied sociology. Elementary school journal, 21: 367-74, 424-37, January, February 1921.

A method in the San Francisco normal school for democratizing the elementary school. Second paper gives examples of replies by pupils to questions regarding ideals of good citizenship.

648. Davis, Calvin O. Citizenship and the high school. Educational review, 61: 214-23, March 1921.

Discusses the various types of student self-governing agencies and their influence on citizenship. The place of social sciences in the curriculum of secondary schools, etc.

649. Henderson, Ruth E. Americanizing through local history. English journal, 10: 61-67, February 1921.

Says that the primary object in drawing upon local color for work in high school English is "to develop in pupils the ability to express themselves about those things of life which are nearest to them in time, place, and interest."

650. Hobbs, William H. History teaching and American citizenship. Educational review, 61: 195-200, March 1921.

A critical study of some post war history texts and their implications.

651. Hunt, Rockwell D. Political science and practical citizenship. Educational review, 61: 185-94, March 1921.

Offers a series of constructive suggestions for teaching civics, having reference and applicability to the instruction of college undergraduates, summed up under the following heads: (1) Stress fundamental principles; (2) teach social sciences through social service; (3) preach and practice political idealism; (4) restore a new type of Puritanism; (5) put principle before expediency; (6) exalt the spiritual meaning of life.

652. Kilpatrick, William H. Our schools and war. Educational review, 61: 201-13, March 1921.

"Since it is conceded," says the writer, "that wars need not be inevitable, what can the schools do to help avert them." Discusses what teachers (and other adults) in our higher institutions of learning, and pupils in our elementary and secondary schools should be taught.

653. Sisson, E. O. Education for politics. School and society, 13: 337-45, March 19, 1921.

The article is a plea for the paying of far greater attention in schools to American culture and ideals, and to the fostering of the habit of intelligent thinking on all questions.



654. **Snedden, David.** Experimental and other forms of research in civic education. *School and society*, 13: 361-72, March 26, 1921.  
A memorandum prepared for the New York society for the experimental study of education.

## AMERICANIZATION.

655. **Berry, Charles S.** Some problems of Americanization as seen by an army psychologist. *School and society*, 13: 97-104, January 22, 1921.
656. **Clark, Walter E.** The stranger within our gates. *Journal of the National education association*, 10: 21-23, February 1921.  
Discusses the problem of Americanization. Address before the National education association, July 6, 1920.
657. **Crist, Raymond F.** Citizens in the making. *Independent*, 105: 134-35, 146-48, February 5, 1921.  
Americanization work of the Federal Government described.
658. **Gray, Robert F.** The training of Americanization teachers. *Educational review*, 61: 224-29, March 1921.  
Says that the teacher must be trained in the needs of the alien and how to meet these needs both in method and technique. Two types of Americanization workers must be trained,—the leader or organizer, and the teachers of immigrants and of adult illiterates, whether in industry, home, or school.
659. **Johnston, Esther.** Readers of a foreign neighborhood. *Survey*, 46: 7-9, April 2, 1921.  
Work of the 43 branches of the New York public library in the foreign neighborhoods of New York city.
660. **Jordan, Riverda H.** The retention of foreign language in the home. *Journal of educational research*, 3: 35-42, January 1921.  
Emphasizes the necessity of English in the home of the immigrant.
661. **La Bella, Louise B.** The spirit of Americanization. *Education*, 41: 494-99, April 1921.  
Presents various conceptions of Americanization work.
662. **Manchester, R. E.** Teaching Americanism. *Journal of education*, 93: 87-89, January 27, 1921.  
Americanism is faith in America and is not to be taught as history might be taught.

## EDUCATION OF SERVICE MEN.

663. **Bigwood, George.** The soldier as student. *Nineteenth century*, 89: 721-26, April 1921.  
Education in the English army. Work of the Army educational corps, which has been recently established and whose duties are exclusively educational.
664. **Harbord, James G.** The poor man's university. *World's work*, 41: 443-45, March 1921.  
Educational work of the U. S. Army.
665. **Messer, William S.** The ex-service undergraduate. *Educational review*, 61: 298-309, April 1921.
666. **Monroe, James P.** A university for the wounded. *Outlook*, 127: 145-46, January 26, 1921.  
Rehabilitation work of the Federal board for vocational education. Utilization of existing schools, colleges, industrial plants, etc. Illustrated.
667. **Myers, Garry C.** The first missionary school of Americanism. *Educational review*, 61: 230-36, March 1921.  
Work of the Recruit educational center in the Army camps.

668. **Powell, E. Alexander.** Training the soldier for peace. Harper's magazine, 142: 619-29, April 1921.
669. **Wisconsin.** State board of education. . . . The rehabilitation of the handicapped. Madison, 1921. 31 p. 8°. (Wisconsin's educational horizon, vol. 3, no. 4)

### EDUCATION OF WOMEN.

670. **Doerschuk, Beatrice.** Women in the law; an analysis of training, practice and salaried positions . . . . New York city, The Bureau of vocational information, 1920. 138 p. 8°.
671. **Hulst, Myra M.** Mortality rates of college women. Quarterly publication of the American statistical association, 17: 599-605, March 1921, n. s. no. 133.  
Also separately reprinted.  
A study of 15,561 graduates from Vassar, Wellesley, and Smith, from the founding of these colleges through the class of 1914.
672. **McKinney, A. H.** Guiding girls to Christian womanhood. New York, Chicago [etc.] F. H. Revell company [1920] 214 p. 12°. (Symth lectures delivered at Columbia theological seminary, Columbia, South Carolina.)
673. **Moberly, Winifred H.** The Oxford women's colleges. Contemporary review, 119: 385-88, March 1921.  
History and growth of the Oxford women's universities described.
674. **Pierce, Anna E., comp.** Catalog of literature for advisers of young women and girls. New York, The H. W. Wilson company, 1921. 85 p. 8°.   
An annotated list of about two thousand titles of the most representative and useful books and periodical articles for the use of deans and advisers of women and girls; heads of women's schools; instructors of young women; women principals of mixed schools; household economics teachers; Young women's Christian association secretaries and workers; deaconesses and other similar religious workers; settlement workers; national and local sorority officers; social directors and workers; physical directors and supervisors of athletics; leaders of girl scouts and campfire girls; women's clubs; directors of industrial relations in charge of women workers; parents of adolescent girls.
675. **Sturtevant, S. M.** The function of the adviser of girls in high schools. University high school journal (Oakland, Calif.) 1: 47-53, January 1921.  
An address given before the deans' conference, California teachers' association, October 23, 1920.

### NEGRO EDUCATION.

676. **Buck, J. L. B.** Builders of a community. Southern workman, 50: 172-77, April 1921.  
The story of the prosperous Negro colony in Suffolk, Va. Illustrated.
677. **Maltby, Frances.** The movable school. Survey, 45: 888-89, March 19, 1921.  
Work among Negro farmers in Madison county, Ala., described. The U. S. Department of agriculture, in cooperation with the Agricultural and home economics extension work of the Alabama polytechnic institute, has been making an extensive campaign among the Negroes of rural communities in the South through the medium of the movable school.

## EDUCATION OF DEAF.

- ✓ 678. **Andrews, Harriet U.** The diary of a deaf child's mother. *Volta review*, 23: 112-37, March 1921.
- ✓ 679. **Brown, J.** The improved development and use of language by our deaf pupils. *Volta review*, 23: 78-82, February 1921.  
Paper read before the National college of teachers of the deaf, Birmingham, England, 1920. Discusses combined advantages of lip-reading and figure-spelling methods, etc.
- ✓ 680. **Boe, W. Carey.** Some observations on the psychology of the deaf child. *Volta review*, 23: 52-59, February 1921.  
A discussion confined to observations on the child who is born deaf or becomes deaf at an age when auditory impressions can have no effect on the mind.
681. **Steed, Lyman, comp.** Report on industrial training in the Pennsylvania institution for the deaf and dumb. *American annals of the deaf*, 66: 121-36, March 1921.
- ✓ 682. **Willard, Charlotte R.** Simplifying the simple. *American annals of the deaf*, 66: 147-64, March 1921.  
Developing language among the deaf.

## EXCEPTIONAL CHILDREN.

683. **Anderson, V. V.** Education of mental defectives in state and private institutions and in special classes in public schools in the United States. *Mental hygiene*, 5: 85-122, January 1921.  
An historical and statistical study. Concludes that the dominant note of the state institution is becoming less and less custodial and more and more medical and educational. Illustrated.
684. **Bryant, Edythe K.** The "will-profile" of delinquent boys. *Journal of delinquency*, 6: 294-309, January 1921.  
A test of 100 delinquent boys at the Whittier state school, Whittier, Calif., made with the will-profile scale.
685. **Carlisle, Chester L.** A survey of conduct in community and school. *Elementary school journal*, 21: 375-79, January 1921.  
Describes work of the Oregon state survey of mental defect, delinquency, and dependency.
686. **Doll, Edgar A.** Education of juvenile delinquents. *Journal of delinquency*, 6: 331-46, March 1921.  
Describes a system of clinical psychology examining at the State home for boys at Jamesburg, N. J.
687. **Hoyt, Franklin Chase.** Quicksands of youth. New York, C. Scribner's sons, 1921. xii, 241 p. 12".  
Author is judge of the Children's court, New York city. His book tells what the juvenile court is doing in making good citizens out of the boys and girls who come before it.
688. **Katherine, Sister.** Advisability of organizing special classes for unusual children. *Modern medicine*, 3: 135-38, 199-202, February, March 1921.  
Paper read before the National conference of Catholic charities, Washington, D. C., September, 1920. Illustrated with statistical graphs.
689. **Lapage, C. Paget.** Feeble-mindedness in children of school-age. With an appendix on treatment and training by Mary Denby. 2d ed. Manchester, The University press; London, New York [etc.] Longmans, Green & co., 1920. 309 p. 12". (Added t-p.: Publications of the University of Manchester. Medical series. no. XIII)

690. Levinson, A. Mentally defective children. *Modern medicine*, 3: 81-82, February 1921.

Emphasizes the importance of detecting mental deficiency much earlier than at the school period. Says that it is unfortunate that to this day no standards of mentality have been worked out for infants.

691. Lundberg, Emma O. The school and the juvenile court. *Survey*, 45: 703-4, February 12, 1921.

Cooperative work between the school and the juvenile court; what has been accomplished by the school departments of Los Angeles, Minneapolis, Seattle, and St. Louis in this regard.

692. Martin, Henry P. Philadelphia's disciplinary school for boys. *Current education*, 25: 47-52, February 1921.

An account of this school's successful dealings with the disciplinary boy.

693. Merrill, Lilburn. The public schools and the treatment of delinquent children. *Journal of delinquency*, 5: 207-14, November 1920.

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A description of the Schenley high school library of Pittsburgh, Pa., read before the State teachers' meeting at Harrisburg, Pa., January 4, 1921, by Superintendent W. M. Davidson, of Pittsburgh.
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In this article, the librarian of the Carondelet branch, St. Louis public library, tells of a play writing contest which was held by the library this year as its contribution to the annual school picnic of five large schools in its vicinity.

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715. **Agriculture in secondary schools; a report of the Commission on the reorganization of secondary education, appointed by the National education association.** Washington, 1921. 32 p. (Bulletin 1920, no. 85)

716. **The curriculum of the college of agriculture; by Carl R. Woodward.** Washington, 1921. 86 p. (Bulletin, 1920, no. 40)

717. **Educational survey of Wheeling, W. Va. Summary of conclusions and recommendations.** Washington, 1921. 53 p.

A digest of the report of a survey of the public schools of the independent school district of Wheeling, W. Va., made at the request of the Board of school commissioners, under the direction of the United States Commissioner of education.

718. **Organization of state departments of education; by L. A. Kalbach and A. O. Neal.** Washington, 1921. 48 p. (Bulletin, 1920, no. 46)

719. **The problem of summer teaching in connection with project supervision; by Aretas W. Nolan.** Washington, 1920. 6 p. (Secondary school circular no. 7, November 15, 1920)

720. **Schools in the bituminous coal regions of the Appalachian mountains; by W. S. Deffenbaugh.** Washington, 1920. 31 p. (Bulletin, 1920, no. 21)

721. **Statistics of city school systems, 1917-18; prepared by the Statistical division of the Bureau of education, under the supervision of H. R. Bonner.** Washington, 1920. 477 p. (Bulletin, 1920, no. 24)

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724. **Treasure hunting of today and chemistry in our schools; by Robert E. Rose.** Washington, 1920. 35 p.

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DEPARTMENT OF THE INTERIOR

U.S. BUREAU OF EDUCATION

BULLETIN, 1921, No. 5

# PART-TIME EDUCATION OF VARIOUS TYPES

A REPORT OF THE COMMISSION ON  
THE REORGANIZATION OF SECOND-  
ARY EDUCATION, APPOINTED BY THE  
NATIONAL EDUCATION ASSOCIATION



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<sup>1</sup> Deceased, Sept. 4, 1917.

## REPORTS OF THE COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION.

The following reports of the commission have been issued as bulletins of the United States Bureau of Education and may be procured from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices stated. Prices in quantity are subject to change. Remittance should be made in coin or money order. Other reports of the commission are in preparation.

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## PREFACE.

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The traditional secondary school limited its instruction to full-time pupils. Rather than adapt the kind and amount of work to the necessities of the pupil who can not attend on full time, it apparently preferred to have him leave school altogether. While frowning upon an elective system within the school, it felt no qualms in allowing the great elective—no attendance or full attendance. The modern secondary school aims to give all pupils of high-school age all the instruction that they can be induced to secure. Society itself is demanding that no pupil of high-school age shall be without instruction.

The Commission on the Reorganization of Secondary Education presents in this report various types of part-time education, including continuation classes, and indicates some of the administrative features desirable. This report is based largely upon a helpful analysis made in 1918 for the High School Masters' Club of Massachusetts by a committee consisting of the following high-school principals: Howard Conant, of Holyoke, chairman; Oscar Gallagher, of West Roxbury, Boston, secretary; Albert B. Kimball, of Fairhaven; and Charles F. Warner, of Springfield. The original report was reorganized and amplified by Edward Rynearson, director of vocational guidance and principal of the Fifth Avenue High School of Pittsburgh, Pa., and a member of the committee on administration of secondary schools of this commission. After discussion and revision it was approved by the reviewing committee of the commission.

Approval by the reviewing committee, however, does not commit every member individually to every statement and every implied educational doctrine, but it does mean essential agreement as a committee with the general recommendations.

CLARENCE D. KINGSLEY,  
*Chairman of the Commission.*

## **PART-TIME EDUCATION OF VARIOUS TYPES.**

### **I. INTRODUCTION.**

1. *Need for part-time and continuation education.*—The requirements for attendance at school vary greatly in different States. In some States they are so low that a pupil may leave school at the age of 14 if only he has completed the fourth grade. In other States a pupil can not leave school under the age of 18 unless he has completed the entire eight grades of elementary schooling.

Taking the country as a whole, probably not more than one-half of the total number of young people between the ages of 14 and 16, and not more than one-fourth of those between 16 and 18, are in school. In other words, the problem of providing part-time and continuation education involves the welfare of as many pupils between the ages of 14 and 16 and of three times as many between 16 and 18 as are now in school in those age groups.

In the years from 14 to 18 ideas and ideals are changing from the plastic to the fixed, from the temporary to the permanent. It is evident, therefore, from the importance of the period and from the large number of young persons involved, that the development of wise and comprehensive plans of part-time and continuation education is vitally important to the industrial, social, and civic life of State and Nation.

2. *Steps taken by the industries.*—Continuation education has been recognized as desirable by many large employers of labor. Some have already established, and others have plans to establish, schools connected with or situated inside their own plants. In some factories attendance is required; in others it is optional. In some the instruction is given in the late afternoon or in the evening; in others it is given within the working day. In some industries the employees are paid for the time of attendance as though they were at work; in others they receive no pay for the time in school.

The lack of uniformity and the fact that only a few employers provide any such system of instruction make legislation necessary. Moreover, the work done in schools connected with the industries should be under public supervision, so that the technical instruction may be balanced by the training for broader and better citizenship.

Welfare departments, workers' insurance, profit sharing, and other social and economic benefits are features of many manufacturing and commercial corporations. These measures are good, but are secondary rather than fundamental. To secure intelligent workmanship we must have trained workmen, but we need not only better production but also better citizenship.

3. *Steps that should be taken by the public schools.*—In the first place the schools should reorganize present courses of study and revitalize methods of instruction so that a larger proportion of both the pupils and their parents may be convinced that full-time attendance at school is worth while. The leading causes for leaving school are as follows:

First, the limited range of instruction commonly offered by secondary schools; second, the failure on the part of the school adequately to demonstrate to young people and their parents the value of the education offered; third, the lure of employment, together with the desire for increased economic independence on the part of young persons; and fourth, economic pressure in the family, real or imagined. To this list of causes may be added failure to pass in school work. Many such failures, however, are due to a loss of interest in school work because its worthwhileness is not evident, or to the failure of the school to adapt its work to individual differences.

The next step to be taken by the school is to make it as easy for the boy or girl to return to school as it was for him to leave. Frequently boys and girls who have wished to return have found that the dates of reorganization of the school program made it impossible for them to do so to advantage until the beginning of a new school year. By that time they were quite likely to have lost their desire to reenter.

In the third place, school administrators should devise plans whereby pupils who desire to engage in part-time, temporary, seasonal, or emergency employment may be permitted to do so without dropping out of school. When the employment is in a field in which they are later to enter or is related to the work for which they are preparing, such part-time, seasonal, or emergency employment may be extremely valuable by affording a basis of experience which will make their school work more intelligent and profitable.

In the fourth place, legislation should be enacted and provisions should be made by the public schools for effective part-time and continuation education of all persons 14 to 18 years of age who have regularly entered upon employment.

4. *Continuous registration.*—With the enactment of adequate compulsory school legislation, including the provision for part-time and continuation attendance, it should be possible to bring about a condition whereby all young people up to 18 years of age, with the possible exception of those who have graduated from the secondary

school, should be enrolled as members of the school. Then will the phrase "dropping out of school" disappear from our vocabulary, in view of the fact that it would no longer be possible. Under this plan the only option would be for a pupil to transfer from full-time to part-time, or conversely, from part-time to full-time. Much of the reluctance to return to school would also disappear, as it would only be necessary for the employed person desiring more schooling to change his enrollment from part-time to full-time.

In a city or district served by a comprehensive high school it would follow that every young person in that district of high-school age would be a member of one high school. Thus the school would be a genuine common school: Such a school under competent leadership would be the most potent institution for promoting social solidarity ever devised by any nation.

## II. TYPES OF PART-TIME EDUCATION.<sup>1</sup>

Part-time education is used in this report in a wide sense. Various types may be distinguished according to the nature of the work or according to the administrative features. On the whole, it appears easier to assume a division according to the administrative basis and to deal with two groups which may be broadly distinguished as *occasional* and *regular*.

### 1. OCCASIONAL TYPES.

The *occasional* types of part-time education may be subdivided into Type A, Seasonal employment, and Types B, C, and D, which may be regarded as Incidental employment. The latter groups may be further respectively designated as unrelated employment, related optional employment, and related required employment. The following summary will make clear some of the difficulties in discussing the question of part-time education. Principals and teachers often apply to the problem as a whole solutions that deal with only one phase.

1. Type A—*Seasonal Employment*: Includes those pupils, principally members of the graduating class, who find positions open to them on condition that they leave school within the last three months before the actual time of graduation. It also includes those pupils who are needed in agricultural pursuits in the spring and fall. In arranging for such employment most careful consideration should be given to the requirements of the position and to the capacity of the boy or girl to meet these requirements.

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<sup>1</sup> The Federal Board for Vocational Education groups all part-time schools or classes under three types: Trade extension, trade preparatory, and general continuation. For an explanation of these consult Appendix A.

2. *Type B—Unrelated Employment*: This group includes all pupils who are obliged to be absent from portions of the school day in order to carry on some work in home, farm, or industry. It is assumed that such employment is necessary from a financial point of view, in order that the pupil may continue in school. It is also assumed that such employment is not directly related to the instruction the pupil is receiving.

3. *Type C—Related Optional Employment*: This group includes those pupils who from time to time as opportunities arise are dismissed from some of their studies for employment closely connected with their school work. It includes, for example, pupils who may be detailed to act as clerical assistants in elementary schools.

4. *Type D—Related Required Employment*: This group includes pupils who are expected to supplement the theoretical instruction in the school with actual office, factory, store, homemaking, or agricultural practice. Many of these pupils are assigned to such work only during the vacations; others for a single day a week. It is an essential part of the program laid out for these pupils, but is a type of part-time work, since it takes them out of the school for a part of the time.

## 2. REGULAR TYPES.

Under the head of regular part-time education there are three types, Type E—Alternating Attendance and Employment; Type F—Four-fifths of Time in School; and Type G—Continuation Attendance.

*Type E—Alternating Attendance and Employment*: This plan applies to pupils pursuing industrial courses in which the programs are so arranged that the pupils are alternately—by weeks, days, or half days—in school and in shop or office.

*Type F—Four-fifths of Time in School*: This plan applies to pupils who are studying salesmanship. They attend school the first four days of the week and go to the store on Fridays and Saturdays for their laboratory work. While this is similar to the plan described under Type D, it occupies a regular place in the schedule of many high schools.

*Type G—Continuation Attendance*: This plan applies to pupils engaged in industry and obliged to spend a stipulated number of hours weekly in school.

In contrast to this classification it is interesting to note that the term "part-time" is sometimes applied to Type E only. No discussion of part-time education is at all adequate when restricted to the one type.



## III. ADMINISTRATION OF OCCASIONAL TYPES.

The problems that face high-school principals in part-time education are those of administration. To what extent must provisions be made for the *occasional* types, and to what extent must cooperative responsibility be assumed for the *regular* types?

*Type A—Seasonal Employment:* In every school excellent positions are available to high-school seniors who can leave school before the date of graduation. It is unjust to hold prospective graduates in school until the excellent positions which are open in such numbers in the spring are filled; and it is uneconomic to have these positions filled by persons less efficient than members of the graduating class.

For the pupil who is placed in such a position, the time between such placement and graduation should be a probationary period during which the employer and the principal or other school official are in close touch with the progress of the pupil. Where the work is satisfactory the pupil should receive his credits or diploma as though he were in regular school attendance; where unsatisfactory the pupil should be required to return to school and arrangements be made for his doing additional school work to make up the time lost while he was in employment.

The pupil so placed in employment can be made to feel that the time, effort, and interest put into his work is to be as much a part of his school record as was his study, attendance, and deportment while in school.

*In Type B—Unrelated Employment*, the number will vary so greatly that there can be no uniform adjustment of the schedule. Some pupils have to work every afternoon throughout the year; others for only part of the year; still others for only certain afternoons in each week. The committee believes that every encouragement should be given to such pupils to continue their membership in school. The all-too-common attitude toward withdrawal from school in case an individual can not conform to the prescribed daily limits should be abandoned. When it is shown that pupils have to leave before the close of the school day it may be possible to arrange a special schedule according to which the regular work of four years may be stretched over five. Thus pupils may be free from the stigma of failure or from bad effects of attempting more than can be well done. Meeting the needs of such pupils may interfere with the operation of a rotating program, such as is now in vogue in some high schools, but in most high schools the fixed program is probably the better arrangement. If rotation programs are desirable, such rotation may be confined to the forenoon session.

*Type C—Related Optional Employment* offers a problem that must be settled according to the exigencies of the case. The length of the

assignment, the interval at which demands are made, and the number of pupils vary so greatly that no definite program can be arranged in advance. With almost no warning a group of boys are invited to help in taking stock; three girls are requested to take charge of a luncheon; two others have a chance to fit a dress or trim a hat. If it is likely, however, that the work is to be of a secretarial nature, purely secretarial subjects may be assigned to hours at the close of the day, in order that while securing practice in clerical work pupils may not lose essential instruction in academic subjects. Special classes should be arranged where the size of groups permits, in which intensive instruction may be given to make up unrelated school work lost on account of part-time employment.

*Type D—Related Required Employment* is the type of work to which the term "laboratory" is applied in many schools. Most of this work should be done outside of school hours. Whenever it is done during school hours special provision should be made for such pupils by classes or groups so that they will not lose the class instruction.

#### IV. EDUCATIONAL AND VOCATIONAL GUIDANCE.

It is safe to assume that many will transfer from an *occasional* to a *regular* type. In such case the work of the vocational supervisor hereinafter described becomes very important. In all part-time work he has the duties of a coordinator, arranging the quota of pupils that are to be had at alternate intervals, looking with great care to their physical and moral welfare in the establishments in which they are working, and also cooperating with the principal to see that the work done in the school is adapted to make the actual vocational progress of the pupil rapid. It must be remembered that in the *occasional* types of part-time work the pupils are getting varied experience which may help them in their life work, while in the *regular* types of part-time education it is assumed that the pupil is actually starting upon his life work. The fact, too, that his pay is to increase with his proficiency, and that his proficiency is to be increased by the proper sort of supplementary instruction given in school, points out the absolute value of a well-trained vocational supervisor.

##### 1. DIRECTOR OF VOCATIONAL GUIDANCE.

The success of the plans for part-time education will depend in no small measure upon the inauguration of an effective and comprehensive plan of vocational guidance. Generally speaking, the boys and girls who are leaving school need guidance in the selection of work. Many of them come from homes where little or no attention is given to vocations. They accept the job that offers the highest

initial wages and do not consider the prospects of promotion. Miles, of Wisconsin, says that 87 per cent of these children enter "blind-alley" jobs. If any class of people ever need the protecting arm and the guiding hand of a true friend, it is these children when they leave their schoolmates and devoted teachers to enter the workaday world. These are the persons who are in special need of vocational guidance. Early in the grades, not long before they begin to plan to quit school, these children should receive educational and vocational guidance. The more money, time, and thought spent in proper guidance of these before they reach the age of 16, the less will be the cost to society for correction, punishment, and mere inefficiency later.

Employment experiences may be of value as a basis for helping the pupil to a wise choice of vocation. In such cases it is of the greatest importance that some one person in the school should help the pupil to profit by these experiences. Has he the aptitudes required in this general field? In what particular subdivision of the field would he succeed best? Is the vocation one which will call forth his best development? Would some other vocation be better for him?

These and many similar questions should be referred to the director of the department of vocational guidance. It should be his principal duty to help develop the sympathy and cooperation of all teachers with vocational guidance. He should be able to show how the school system, as well as the courses of instruction, should function in educational and vocational guidance. In order that the work should be uniformly well done and that each school may know what is being done, he should have frequent and regular conferences of the counselors or representatives from each district or building. The director and those associated with him should be able to give valuable suggestions to those who frame the course of study.

When a choice of vocation has been made, the employment should be in the same field as the vocation chosen, and the experience should be utilized as a basis for the vocational education offered this pupil in the school. To accomplish this result, some person connected with the school must study the pupil at work so as to help him to profit from his successes and failures and to connect up the school instruction, so far as it is vocational, with the practical work.

Again, the wise placement of pupils in part-time employment necessitates a close acquaintance with the occupations of the community. Some one must know the employers and their needs. He must tactfully establish helpful cooperative relations with such employers and at the same time know individually the pupils who are likely to meet the needs of the employer.

## 2. VOCATIONAL COUNSELORS.

The director of the department of vocational guidance should have assistants according to the amount of work assigned to his department. It is necessary that every high and elementary school should have a vocational counselor.

In the small school these duties may be performed by the school principal, or by some one teacher especially suited to the work by temperament and interest. But such a teacher should fit himself or herself for the work by taking courses in vocational guidance and employment supervision and should also have a reduced schedule of teaching. In the medium-sized high school one person should devote his or her entire time to the work. In the large coeducational high school there should be a man to look after and help boys, and a woman for the girls.

The duties of a counselor in vocational guidance should include the following:

1. Giving advice to individual pupils, but not making actual decisions for them.
2. Helping pupils to find employment and helping employers to find pupils with the proper qualifications.
3. Visiting pupils at work.
4. Helping teachers of vocational subjects to connect their instruction with the employment experiences and needs of the pupils.
5. Cooperating with the parent and child—
  - (1) In discovering and developing that ability of every boy and girl that will give him the greatest economic and social returns.
  - (2) In knowing the requirements and training for various occupations, the qualities necessary for success, the demand and supply of workers, positions, pay, and future in them.

## 3. SCOPE OF VOCATIONAL GUIDANCE.

In other words a complete vocational guidance program may be said to involve the following eight steps:

1. Survey of the world's work.
2. Studying and testing pupil's possibilities.
3. Guidance in choice and rechoice of vocation.
4. Guidance with reference to preparation for vocation.
5. Guidance in entering upon work; that is "placement."
6. Guidance in employment; that is, "employment supervision."
7. Progressive modification of school practices.
8. Progressive modification of economic conditions.

For an analysis of these eight steps the committee would refer to Bulletin 19 for 1918 of the United States Bureau of Education en-

titled, "Vocational Guidance in Secondary Education." (A Report of the Commission on the Reorganization of Secondary Education.)

The foregoing analysis shows that employment supervision is but one aspect of vocational guidance and that all phases of vocational guidance are so closely related that they should be under the same counselor in each school or director for the entire city.

## V. ADMINISTRATION OF CONTINUATION GROUPS.

*In Group G—Continuation Attendance*—we have the largest number of persons involved and the most important problems to consider. The welfare of the State, economic and civic, is to depend in no small measure upon the provisions for this group. So vital are these needs that during one year (1918) 16 states<sup>2</sup> passed compulsory part-time school laws. The value of this legislation depends on the way in which these laws are enforced and the provisions made by the schools. Many States of the North and West have already included similar measures on their programs for legislation within the next two years. It seems likely that within a short time every State in the Union will enact compulsory part-time attendance laws. There is also a tendency to raise the age-limit of attendance upon part-time classes. The hours per week of required attendance vary from four to eight.

A large enrollment in the continuation classes of any city, however, is cause for inquiry as to whether the full-time education offered by that city is properly adapted to the needs of the pupils. As long as the instruction offered by the school meets the needs of the pupils and the financial circumstances of the family permit, children should be urged to remain in school on full time. Part time should be regarded as the last resort.

### I. LOCATION OF CONTINUATION GROUP.

Where, in the school system, should the continuation group be located—in elementary schools, in high schools, or in separate and distinct continuation schools?

In most States none of the children attending continuation classes are under 14 years of age. Some of them had entered the high school before they left school to go to work; others had not completed the elementary school; and, in States where the law does not require the completion of the sixth grade, some were in the sixth or even a lower grade. But children of 14 years of age and over are properly of high-school age. More and more emphasis is now being placed upon the importance of recognizing age as a factor in determining the admission of pupils to junior and senior high schools. This com-

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<sup>2</sup> A brief summary of the laws of these States will be found in Appendix B.

mission in its report on Cardinal Principles of Secondary Education<sup>\*</sup> states:

We recommend that secondary schools admit, and provide suitable instruction for, all pupils who are in any respect so mature that they would derive more benefit from the secondary school than from the elementary school.

Clearly, therefore, these children do not belong in elementary schools and should not be grouped with the children in those schools.

Furthermore, this commission in its report on Cardinal Principles of Secondary Education urges that the continuation group be organized as one of the groups in comprehensive high schools and not organized as a wholly independent or separate school, giving the following reasons therefor:

In view of the importance of developing a sense of common interest and social solidarity on the part of the young worker and those of his fellows who are continuing in full-time attendance at school, it appears to this commission that this part-time education should be conducted in the comprehensive secondary school rather than in separate continuation schools as is the custom in less democratic societies. By this plan the part-time students and the full-time students may share in the use of the assembly hall, gymnasium, and other equipment provided for all. This plan has the added advantage that the enrollment of all pupils may be continuous in the secondary school, thus furthering employment supervision on the one hand and making easier a return to full-time attendance whenever the lure of industry or the improvement of economic conditions in the family makes such a return inviting and feasible.

At first sight it would appear that the inclusion of a continuation department would complicate the administration of a comprehensive high school. A true comprehensive high school, however, can no longer hold to a short, fixed school day for all pupils. Its facilities must be available at whatever times the needs of any important group of part-time pupils may require. In reality the presence of these pupils will stimulate the comprehensive high school to broaden the conception of its function, so that it will be helped to serve all its pupils more effectively. The importance of employment supervision also will be more clearly recognized.

In recommending that the continuation group be organized as a department of a comprehensive high school—

It is assumed that the principal of a modern comprehensive high school is a man of broad vision and sympathies and consequently will be interested in helping to meet the varied needs of the continuation pupils.

It is assumed that the principal will organize each important group, such as the continuation group, under competent leadership, and at the same time develop, in so far as possible, the sense of social solidarity in the entire student body.

It is assumed that the principal will give the director of the continuation group whatever freedom he may need in working out his

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<sup>\*</sup> Bull. 35 for 1918, U. S. Bu. of Educ.

problems, assisting him in such ways as a broad administrator can assist a competent specialist.

It is assumed that the continuation group will be instructed by teachers selected for their sympathetic insight into the problems of these pupils.

The chief arguments, therefore, for making the continuation group a department of a comprehensive high school rather than placing it in a separate, unrelated organization may be summarized as follows:

1. The continuation pupils will have the consciousness that they are sharing in the use of the best facilities offered by the community.
2. The sense of social solidarity and of loyalty to the whole community will be developed among all pupils of high-school age.
3. The varied needs of continuation pupils can be more adequately met in the larger organization with its varied facilities.
4. The comprehensive high school will be stimulated in its efforts to serve the needs of all pupils of high-school age.
5. The community will be stimulated in gaining a broad conception of the function of the high school, and consequently will give it greater financial and moral support.
6. A return to full-time education on the part of continuation pupils will be encouraged and be made natural and easy whenever circumstances permit. The very coordination of this department with the rest of the school will facilitate this return.

## 2. THE EDUCATIONAL OBJECTIVES.

The determination of educational objectives in this continuation group is of vital importance. Many children who barely finish the sixth grade with no desire to read would soon become illiterate if the State did not compel attendance in the continuation classes. We must conserve and extend the education already acquired.

There is the financial gain that comes with increased industrial efficiency. This, however, can be easily overemphasized in the case of persons who are lacking in the rudimental knowledge of the duties and privileges of citizenship. In each case the needs of the individual must be considered, and groups formed so as to meet these individual needs. A study of community civic problems, current events, political and industrial history, practice in oral and written composition, contact with good reading, all of these are important and should result in better citizenship and should bring a finer and broader enjoyment of leisure. Such forms of mathematics as can be applied to the occupation, commercial geography with practical application, the rudiments of commercial law, business arithmetic, special drill in typewriting, free-hand and mechanical drawing, should be available according to the needs of the individual.

The work in the school should not merely duplicate the employment experiences. It should interpret those experiences and should help the young worker to solve the problems arising therefrom.

Since the working hours are becoming fewer, the leisure hours demand more than passing notice. To assume a negative attitude on the question of one's avocation is often to destroy one's efficiency in his vocation. To shorten the hours of labor without enriching the life of the laborer is to give him more hours in which to lower his vitality and morals. The misuse of the hours of leisure makes more criminals and loafers than do the hours of labor. Shall the hours of leisure promote enlightenment, culture, and progress, or promote degeneracy, depravity, and decay? The one encourages the beautiful in music, art, and literature; the other seeks satisfaction in prize fights and the common vices. A great need in our changing social life is an equipment for the right use of leisure.

The health needs of young workers, especially under modern industrial conditions, can not safely be neglected. Few, if any, of these young workers know how to safeguard their health. Properly instructed they will demand sanitary working conditions and will cooperate with the intelligent employer who strives to protect his employees and to increase their vigor and efficiency. The relation of posture to efficiency is a single illustration of the need for health intelligence. Then, too, tendencies to crooked spines, flat feet, and other defects must be detected through physical examinations, and corrective exercises must be prescribed. Recreational games are essential correctives for those engaged in many types of work and must be provided either in school or in recreation centers.

No program for continuation education is adequate unless it gives careful consideration to each of the seven objectives set forth by this commission in its report entitled "Cardinal Principles of Secondary Education." These objectives are: Health; Command of fundamental processes; Worthy home membership; Citizenship; Vocation; Worthy use of leisure; Ethical character.

To do justice to the vital needs of young workers as suggested by these objectives it is necessary that the minimum number of hours of attendance in continuation classes should be not less than 8 hours a week for each week that the high school is in session, or a requirement of not less than 320 hours per year distributed over a reasonably long period of time during the year.

The value of part-time instruction, if properly organized, is out of all proportion to the time involved, because it can utilize as a basis the new experiences of the young worker and his new social and civic contracts. Moreover, continued attendance at school will afford an intellectual stimulus too often lacking to these young persons under the modern subdivision of labor. (Cardinal Principles of Secondary Education.)



A general movement seems to be going through the country to raise the limits of compulsory education. Thus, the period for continuation education is the time between the withdrawal from school and the age of 18 or the completion of a secondary school course. With the increased amount of instruction on general matters of English, arithmetic, community civics, science, geography, and history that pupils may be expected to have acquired, doubtless the time of the older group will be devoted in a larger proportion to vocational education. In all continuation education we must not lose sight of the fact that increased production, better products, and more efficient workmen are not the only ends. Machines may be conceived, planned, and built which will double the output, improve the quality, and require but little repairing or adjusting. No progressive employer of labor thinks of his men only in terms of equipment or their labor in terms of horsepower. Materials and methods used in the continuation school must, both in content and intent, be broad enough to include something more than the development and improvement of technical skill. We must stimulate in the youth a desire for good citizenship and the ability to find suitable enjoyment and wholesome profit in leisure hours.

#### VI. SUMMARY OF RECOMMENDATIONS.

1. That all those types of part-time work which meet the needs of the community be incorporated into the high-school organization as early as possible.
2. That a department of vocational guidance, including employment supervision, be established in every high school.
3. That the establishment of continuation education be made compulsory.
4. That continuation attendance be made compulsory up to the age of 18, exception being made for those who have completed the secondary school course.
5. That the continuation group be administered as a part of the high-school system.
6. That attendance at continuation classes be required for not less than 8 hours a week or 320 hours a year.
7. That continuation education be sufficiently comprehensive in scope to include all seven of the objectives set forth by this commission.
8. That attendance at continuation classes be in the day time and be counted in the legal hours at which minors may be employed.
9. That in cities and towns having only one high school, the continuation group be located in that high school.
10. That in cities having more than one high school, the continuation group be located in that school, or those schools, whose location is favorable, instead of establishing separate continuation schools.

## APPENDIX A.

### TYPES OF PART-TIME EDUCATION RECOGNIZED BY FEDERAL ACT.

In the provisions of the Federal act of February 23, 1917, three types of part-time schools or classes are clearly indicated:

1. Schools or classes for those who have entered upon employment giving instruction in the trade or industrial pursuit in which they are employed. (Trade extension part-time schools or classes.)

2. Schools or classes for those who have entered upon employment who wish to fit themselves for a trade or industrial pursuit other than that in which they are employed. (Trade preparatory part-time schools or classes.)

3. Schools or classes giving subjects to enlarge civic and vocational intelligence, i. e., to extend general education or to help in the choice of a vocation. (General continuation part-time schools or classes.) See rulings given above for part-time instruction in other vocations than trade and industrial.

The general characteristics of these three types of education are summarized in the chart.

#### CHART OF DIFFERENCE AND SIMILARITIES IN THE THREE TYPES OF PART-TIME EDUCATION.

##### KIND OF SCHOOL.

CHARACTERISTICS.	TRADE EXTENSION.	TRADE PREPARATORY.	GENERAL CONTINUATION.
Controlling purpose.....	To supplement daily work.	To prepare for a trade or industrial pursuit.	To extend and supplement general education.
Age of admission and maximum age.	Entrance, 14 years; no maximum.	Entrance, 14 years; no maximum.	Entrance, 14 years.
Necessary plant and equipment.	Varies according to trade or industry; may be small in case work is related to subjects.	Must approximate that used in industry.	Usual classroom and laboratory manual training.
Minimum for maintenance.	Variable.....	Variable.....	Variable. Least cost of three types.
Character and content of courses of study.	Supplements daily work; depends upon individuals.	Experiences from vocations studied.	Subjects to enlarge civic and vocational intelligence.
Length of course.....	Minimum, 144 hours a year.	Minimum, 144 hours a year.	Minimum, 144 hours a year.
Qualifications of teachers.	Master of trade or technical subjects, or both.	Master of trade or technical subjects, or both.	Teacher of experience in elementary or high school, with appreciation of industry.
Aim for pupils.....	To better fit for employment in work now engaged in.	To learn a trade while engaged in some other occupation.	To add to general education.

According to section 11 of the Federal act, at least one-third of the money apportioned to a State for the salaries of teachers of trade, home economics,

and industrial subjects must be expended, if at all, for part-time schools and classes; the act further provides that the subjects given must be to enlarge the civic or vocational intelligence of persons over 14 years of age who have entered upon employment. This is interpreted clearly to mean general continuation school work as well as trade extension and trade preparatory work. Part-time education has been advocated in some form by the Federal Board for Vocational Education from its very inception.

Pennsylvania and Wisconsin were the first States to make laws providing for compulsory school attendance of children over 14 years of age, and these States passed these laws before the enactment of the Federal Vocational Education Act.

Wisconsin passed the law in 1911. It provided that children who go to work between 14 and 16 years of age must attend school 4 hours a week. This law was amended at successive sessions of the legislature until it now requires employed children between the ages of 14 and 17 to attend continuation schools for not less than 8 hours per week.

In 1913 Pennsylvania enacted a law that required the attendance of all children between 14 and 16 who are employed to attend school not less than 8 hours a week. This does not apply to children "employed on the farm or in domestic service in private homes."

Mr. Lewis H. Carris says:

It is to be observed that these States present the widest variety of conditions as to population, conditions of industry, and education. As to population they vary from the most populous State in the Union, New York, to Nevada, one of the least populous. It is evident that the problems of administration will vary in these two States to almost as great a degree of difference as is indicated by the ratio of population of these States. Perhaps, however, not in the degree of difficulty, since it may prove more difficult in fact to administer a State program of compulsory part-time schools in a sparsely settled community than in a large city where large groups of children are to be taught. If the State board or State superintendent should be too lenient in the granting of permission for the nonestablishment of compulsory part-time schools where such provision has been made, the acts would become practically permissive mandatory laws.

## APPENDIX B.

### SUMMARY OF LAWS IN THE 19 STATES THAT REQUIRE CONTINUATION EDUCATION.

Probably no one phase of education has received more attention within so short time as compulsory part-time schools. Within two years 16 States enacted compulsory part-time education for employed children over 14 years of age, Wisconsin and Pennsylvania having previously passed part-time education laws, and Massachusetts followed somewhat later. In eight of these States the compulsory period extends from 14 to 18, in nine States from 14 to 16, in one from 14 to 17, and in one from 16 to 18.

The following data are taken from Bulletin 55 of the Federal Board of Vocational Education:

#### *Attendance in continuation schools.*

States.	Minimum number of minors required to establish classes.	Ages of required attendance.	Hours a week required attendance.	Length of school year.	Law in effect.
Arizona.....	15	14-16	5	150 hours	1919
California <sup>1</sup> .....	12	14-18	4	(?)	1920
Illinois.....	20	14-18	8	(?)	1921
Iowa.....	200	14-16	4	(?)	1919
Massachusetts <sup>2</sup> .....	50	14-18	8	(?)	1920
Michigan.....	15	14-16	8	(?)	1920
Missouri.....	25	14-16	4	(?)	1919
Montana.....	15	14-18	4	(?)	1919
Nebraska.....	15	14-16	8	144 hours	1919
Nevada.....	15	14-18	4	(?)	1919
New Jersey.....	20	14-16	6	36 weeks	1920
New Mexico.....	15	14-16	5	150 hours	1919
New York <sup>4</sup> .....	20	14-18	4-8	(?)	1919
Oklahoma.....	20	16-18	.....	144 hours	1919
Oregon <sup>5</sup> .....	15	14-18	5	(?)	1919
Pennsylvania.....	30	14-16	8	(?)	1915
Utah.....	15	14-18	4	144 hours	1919
Washington <sup>6</sup> .....	15	14-18	4	(?)	1920
Wisconsin.....	(*)	14-17	8	8 months	1911

<sup>1</sup> High-school districts having 50 or more pupils must establish part-time classes.

<sup>2</sup> Same as public schools.

<sup>3</sup> Referendum adopted by all towns affected except one.

<sup>4</sup> Establishment required only in cities of over 5,000 population.

<sup>5</sup> Attendance upon evening school may be substituted.

<sup>6</sup> Districts may organize schools upon written request of 25 residents.

DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

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OPPORTUNITIES FOR STUDY  
AT AMERICAN GRADUATE SCHOOLS

By

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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, May 31, 1921.*

SIR: With the close of the World War numerous students from foreign countries will doubtless avail themselves of the opportunity to pursue courses of study at American colleges and universities. Among those students will be an unusually large number who should be attracted by the superior advantages and facilities offered for the pursuit of graduate study at American institutions of higher learning. In order that these students may have some guide to the conditions of graduate study in this country and to the noteworthy facilities at the most important American universities, I have requested the division of higher education to prepare a circular to be entitled "Opportunities for Study at American Graduate Schools." I am transmitting this compilation herewith for publication as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.



# OPPORTUNITIES FOR STUDY AT AMERICAN GRADUATE SCHOOLS.

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## INTRODUCTION.

Foreign students are annually attracted to American higher institutions in large numbers. They are to be found in every type of college or university, pursuing courses of all sorts and of every degree of advancement. Professional courses in engineering, agriculture, dentistry, and medicine have enrolled the majority of them. This is evidently because of the belief that American institutions have developed methods of training in these and certain other technical lines which are more concrete and practical than those employed in the institutions of Europe and Latin America.

At the same time increasing numbers of students from other countries are following courses in pure science and the humanities in American colleges and graduate schools. Inquiries concerning the scope and conditions of work of this kind in the United States come more and more frequently to the Federal Government and to the officers of the various colleges and universities. Both American and foreign educators have, therefore, been led to consider carefully the desirability of encouraging this flow to the United States of students who seek general nonprofessional higher education. The consensus of opinion appears to be that while such movements tend to promote international understanding, and hence are desirable, the greatest benefits are likely to be reaped by those who come to the United States for advanced study after the completion of their general liberal training at home. Such students are more mature. They are better able to represent and interpret the spirit of their own nations, better able to comprehend the life and purposes of the United States, more likely to return to their own countries when the period of university training is ended.

Most States maintain normal schools for the training of teachers, or a more or less well-developed State university, or both. The normal schools and certain departments of the State universities articulate with the public high school in ways later to be described.

Alongside the public institutions various groups and individuals have founded elementary schools, high schools, academies,<sup>1</sup> normal schools, and colleges. The most extensive system of private schools is that under the control of the Roman Catholic Church. The total enrollment of the Catholic parochial schools was 1,633,599 in 1919. Other religious sects have also established institutions to provide education under denominational auspices. Both the religious schools and the private schools under denominational control parallel rather closely the amount and character of the training afforded by the public institutions of the same grade. These nonpublic institutions and systems are allowed perfect freedom of development under the laws of the country.

The foreign observer, noting chiefly the dissimilarities of the State systems, is at first inclined to think that a hopeless confusion of standards and organization must characterize American education. But the differences are after all superficial rather than fundamental. The same general types of institutions are to be found in every State, whether they all belong officially to the State system or not. Their interrelations are also essentially the same. There are still certain inequalities of educational standards, especially among higher institutions, but these are not so great nor so widespread as is often believed.

### STANDARDS.

The principal reasons for the variation in the standards of higher education are perhaps already apparent, yet they should be briefly summarized because of their bearing on the whole plan and method of American education. The State educational systems have grown up independently of one another. If one takes account of the provisions for education made by a few of the colonial governments before the founding of the United States, the dates of establishment of the 49 systems of education have covered a period of something like two centuries and a half. In that time the social philosophy of the Nation has changed. The common conception of the part the State should play in fostering and controlling education has changed with it. According to a widely prevailing theory all grades of education, from the kindergarten to the university, should be supported and managed by the State or local government. In the relatively newer States of the West and Middle West this condition is realized. Higher and secondary institutions not under public control are either rare or nonexistent. The educational policy of the older States, on the other hand, had crystallized before the general acceptance of this theory. Here the responsibility for providing elementary and a certain amount

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<sup>1</sup> The term "academy" is generally applied to a school of secondary grade.

of secondary education is felt to rest properly on the State, but higher education is left, for the most part, to independent institutions founded under various auspices, principally religious, and subject to little or no public supervision.

Inevitable differences of standards sprang from these differences in methods of control. Moreover, a few of the States, particularly those of more recent origin and of sparse population and those impoverished by the Civil War of 1860-1865, have thus far found difficulty in providing adequate equipment for thorough university education and in enforcing the most severe scholastic requirements. In this latter group of States, also, the development of universities and colleges of the highest grade has been still further retarded by the inferiority of the lower schools which prepare students for advanced education.

There are, however, several counter influences at work tending to reduce these inequalities. Chief among them is the action of numerous national and sectional associations of school and university officers. For a number of years these associations have been engaged in defining standards of school and professional training and determining the appropriate scholastic requirements for degrees. In the sections of the country where education is best organized the recommendations of these associations are regarded as authoritative and are put into operation as speedily as possible. The educationally less favored sections are also striving to conform to the standards proposed by such bodies and are making increasingly rapid progress in this direction.

In elevating the standards of various types of institutions, principally in the fields of rural education and higher education, the recommendations of the United States Bureau of Education have also had wide influence.

To this group of students the offerings of American graduate schools should make an especially strong appeal. It is to this group that the present monograph is primarily addressed. It is believed that the opportunities for advanced study and research now available at American graduate schools compare favorably with the best to be found anywhere in the world.

## **ORGANIZATION OF EDUCATION IN THE UNITED STATES.**

### **STATE SYSTEMS.**

The United States is a federation of 48 self-governing Commonwealths, each of which exercises independently all powers not specifically conferred upon the Federal Congress by the Constitution or derived by implication therefrom. Since the Constitution does

not provide for the control of education by the Federal Government, there is no national system; but the United States contains within its area 49<sup>2</sup> separate systems of education.

No two of the State systems are exactly similar, yet they possess certain common factors. For example, all States provide by law<sup>3</sup> for elementary education at public expense. The usual length of the public elementary school course is eight years. Children commonly enter at the age of 6 or 7 and finish at the age of 14 or 15. In all but three States school attendance during a part or all of this period is compulsory.<sup>4</sup> Public secondary schools, called high schools,<sup>5</sup> offering a course generally four years in length, are also maintained in every State. The high-school course is based on the elementary school course and is open to graduates of elementary schools or others of equivalent preparation.

The high school serves three main purposes. To the great mass of students who frequent it it offers four years of cultural and informational study designed to equip them for more intelligent and resourceful lives as citizens of a democracy. Its second purpose is to prepare students for various higher institutions. In the third place, a number of specialized public high schools fit young people for wage earning in trades and industries. In general, it may be said that the high school has tended more and more to adapt itself to the needs of the local community by introducing studies of a practical and vocational nature and by allowing its students increasing latitude in the choice of courses to be pursued.

Whether American education ever shall achieve complete uniformity in standards and methods of management is open to doubt. Uniformity is contrary to the genius of the Nation. The Americans are an individualistic people. Their educational systems and institutions have reflected this quality. These have maintained the right to expand as they choose and to adapt their courses to local needs, free from hampering restrictions. Their freedom is, in fact, one of the sources of their strength. Nevertheless, it may safely be said that there is now a national consensus of opinion as to what the standards of admission to and graduation from the principal types of institutions should be, that the standards agreed upon coincide in the main with those in force in the corresponding institutions of other leading nations, and that they are already maintained by the

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<sup>2</sup> Including the District of Columbia, which is the seat of the Federal Government.

<sup>3</sup> The raising of the necessary money by taxation for the support of the schools and the administration of them are generally left to local communities—counties, towns, or districts. But local funds are often supplemented by State funds.

<sup>4</sup> The age of compulsory attendance is generally from 7 or 8 to 14 or 15. A few States require attendance up to 16 years.

<sup>5</sup> Not to be confused with the German Hochschule, an institution of university grade. The high school corresponds more nearly with the middle portion of the course in a German Gymnasium or Oberrealschule.

best institutions of the United States. Indeed, students from abroad will find in those educational centers to which they will probably be attracted unsurpassed facilities for advanced academic and professional training. The brief outline of the opportunities for graduate study in the United States presented in this pamphlet deals principally with conditions existing in these more prominent educational centers.

## EVOLUTION OF THE UNIVERSITY.

### THE COLLEGE.

An explanation of the prevailing organization of higher education in the United States properly begins with a description of the American college, an institution which has no exact counterpart in any other country.

Historically, the college is the oldest of American institutions. The first one, Harvard College, was founded in 1636 by the early English settlers in Massachusetts. Cambridge and Oxford furnished its prototypes. Following the example of these institutions, Harvard College was designed to give training in the liberal arts, principally Latin, Greek, philosophy, and mathematics. Most of its earlier graduates entered the Christian ministry. In fact, to supply properly trained young men for this profession was one of the chief objects sought in the foundation of Harvard and of the other colleges established during the first century of colonial life in the United States. Gradually, however, the purpose and character of the college changed. The more elementary stages of the subjects taught were given over to lower schools. New subjects were added to the curriculum. The college lost its theological bent without becoming a training school for other professions. It still offered courses in the liberal arts, leavened more and more by the introduction of the sciences, and bestowed upon those who completed these courses the degree of A. B.

Three very significant changes in the relation of the college to the scheme of higher education occurred during the nineteenth century. The first of these was the founding of the professional schools of theology, law, and medicine. Although students were, and to some extent still are, admitted to these schools without a previous college education, the tendency has been constantly growing to demand a college degree or at least a period of collegiate study as a prerequisite for entrance. The college has thus become in certain measure a preparatory school for those who contemplate a course of professional training.

The second change to which reference has been made was the development within the college of departments of pure and applied

science. By the middle of the nineteenth century the degree of B. S., granted for work done largely in the sciences, began to occupy a position of parity with the older degree of A. B.<sup>6</sup> Gradually also these courses in science ramified further into courses in engineering. The engineering schools or divisions thus became coordinate parts of many colleges of liberal arts.

The third and most momentous change in the status of the college was brought about by the establishment in connection with certain colleges of graduate schools on the model of the faculties of philosophy of German universities. The graduate schools have grown up principally in the last 45 years; indeed, the movement received its first strong impetus with the founding of Johns Hopkins University, incorporated in 1867 and opened for instruction in 1876. (See p. 37.) The graduate schools offer to college graduates courses leading to the degrees of A. M. and Ph. D. and degrees of corresponding grade in the technical branches. They provide opportunities for advanced study in the arts and sciences and for research similar to those provided by the leading European universities.

#### THE UNIVERSITY PROPER.

The college is the nucleus from which all higher institutions of learning have sprung. Before the nineteenth century there were no universities in the modern sense of the word. With the rise of professional schools of theology, law, and medicine, most of which were outgrowths of colleges already established, American institutions began to approach university organization. The name "university" came also into common use to designate an institution composed of a college and one or more professional schools, each under the control of a separate faculty. German influence was the dominant force in American higher education for many years and the universities of the United States were deliberately molded to the German type. The establishment of the graduate schools marked the final step in this evolution, the four traditional faculties of the German university, theology, law, medicine, and philosophy, being thus represented.

But the modern American university is more complex in organization than its Germanic prototype. It has added other schools or divisions.<sup>7</sup> Schools of dentistry, of various branches of engineering, of agriculture, of veterinary medicine, etc., are now frequently

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<sup>6</sup> A number of other baccalaureate degrees have also been conferred, such as Ph. B., B. Ped., etc., but the present tendency is toward the two older degrees of A. B. and B. S., according as the subjects forming the basis of the curriculum are humanistic or scientific.

<sup>7</sup> In some institutions the various divisions are also called colleges, as, for example, college of medicine, college of education, etc.

included in a single university.<sup>8</sup> The University of California, for instance, has 19 such schools or departments; the University of Chicago, 10; the University of Illinois, 13; and the University of Michigan, 8. As each new profession develops, a special division designed to give the training requisite for it is added to the university. In this manner, schools or colleges of commerce, of business administration, of domestic science, of ceramics, and of journalism have recently been established at a number of the larger universities. The process will undoubtedly continue with the further multiplication of the professions.

The term "university," however, has as yet no fixed connotation. The laws of the several States governing the incorporation of higher institutions vary greatly. Some require substantial assurance that an institution applying for charter will conform to the accepted standards of the designation which it seeks. In some States, on the other hand, it is possible to secure a university charter on the strength of prospects and good intentions alone. Even before the evolution of true universities, it was common for colleges offering nothing but a single course leading to the bachelor's degree to be chartered as universities. The name, therefore, antedated the thing. Many of these colleges still retain the name without having developed into universities. In certain sections of the country and in the minds of certain persons the college and the university are thus very naturally confused. No distinction is made between the two institutions. This confusion is the more readily understood if one recalls the fact that practically all the larger, thoroughly organized universities maintain a college of arts and sciences. A student who attends the college of arts and sciences of Cornell or the college of letters of the University of California is a member of the university and by tacit consent is allowed to call himself a "university student"; but his educational status is exactly the same as that of a student of Amherst College or Hamilton College, neither of which has any professional departments. Yet the student of the isolated college, like the two just mentioned, calls himself a "college student."

The institutions listed and described in this pamphlet are universities in the strictest sense of the term, i. e., universities maintaining professional divisions and conferring advanced degrees.

A composite view of the best American universities would show an organization of schools and divisions substantially as recorded below. Not all the divisions mentioned are represented in every one of the strongest universities. This conspectus is intended rather to show the scope of the university education than to describe conditions

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<sup>8</sup> Thus, for instance, the type of institutions known as the Technische Hochschule in Germany, or the École Polytechnique in France, is in the United States commonly a school or division of the university.

actually existing in any particular university. A few universities include in their organization other special schools or institutes devoted to preparation for particular callings, as, for instance, the School of Mines and Metallurgy of the University of Missouri, the College of Chemistry of the University of California, the Bussey Institution of Applied Biology of Harvard University, the School of Forestry of Yale University.

#### CONSPECTUS OF UNIVERSITY ORGANIZATION.

##### College of Arts and Sciences.

Admission: Graduation from secondary school, or equivalent.

Degrees: A. B. and B. S. Four-year courses.

##### College of Engineering.

Admission: Graduation from secondary school, or equivalent.

Degrees: B. S. in Civil, Mechanical, Electrical Engineering, etc. Four-year courses.

##### College of Agriculture.

Admission: Graduation from secondary school, or equivalent.

Degree: B. S. in Agr., or some branch of agriculture. Four-year courses.

##### College of Veterinary Medicine.

Admission: Graduation from secondary school, or equivalent.

Degrees: D. V. M. or V. M. D. Four-year course.

##### College of Commerce.

Admission: Graduation from secondary school, or equivalent.

Degrees: A. B. or B. S. in Commerce. Four-year courses.

##### College of Journalism.

Admission: Graduation from secondary school, or equivalent.

Degrees: A. B., B. Litt., or B. J. Four-year course.

##### College of Pharmacy.

Admission: Graduation from secondary school, or equivalent.

Degrees: Ph. G. after two-year course. Ph. C. after three-year course.

Ph. B. after four-year course.

##### College of Dentistry.

Admission: Graduation from secondary school, or equivalent.

Degrees: D. D. S. or D. M. D. Four-year course.

##### College of Education.

Admission: Graduation from secondary school, or equivalent.

Degrees: A. B. or B. S. in Education. Four-year course.

##### School of Theology (only in connection with certain privately endowed universities).

Admission: Graduation from college of arts and sciences.

Degrees: B. D. or S. T. B. Three-year course.

##### School of Medicine.

Admission: Completion of two years of college of arts and sciences.

Degree: M. D. Four-year course.

##### School of Law.

Admission: Completion of two years of college of arts and sciences.

Degree: LL. B. Three-year course.

##### Graduate Schools.

Admission: Graduation from four-year college course.

Degrees: A. M. or M. S. One or two year course. Ph. D. or Sc. D., other degrees. Three or four year course.



## EQUIPMENT.

In connection with this outline of university organization it is fair to mention the astounding array of material appliances possessed by all of the principal American universities. In no other country has education been the recipient of such large and numerous benefactions from philanthropic men and women. The greatest of these have gone to American universities. Furthermore, the prosperous Commonwealths have contributed huge sums for the equipment of their State institutions. Certain of the richer universities are provided with almost everything they can possibly need to make their work effective. A description of a single great university plant would occupy too much space to be included in such a brief survey as this, but a citizen of another country who has never seen an American institution may form some idea of the magnitude of these establishments by the subjoined statements of the value of grounds and buildings of leading universities as reported to the United States Government: University of Illinois, \$5,285,053; University of Michigan, \$4,758,621; University of Wisconsin, \$7,086,799; Cornell University, \$7,739,700; University of California, \$11,400,891; University of Chicago, \$11,698,223.

## THE GRADUATE SCHOOL.

The position of the graduate school in the stronger American universities is not paralleled by the position of any division of universities of other lands. Originally planned to correspond to the faculty of philosophy of the German university and offering instruction merely in pure science and the humanities, the graduate school has far outgrown the first conception of its function. The graduate school of the large American university now usually organizes into one administrative unit<sup>o</sup> all the advanced teaching and all the facilities for original research provided by the university in any of its departments. Under this arrangement holders of the bachelor's degree who desire to specialize, for example, in agriculture, in engineering, in medical science, or in pharmacy, as well as in pure science and the humanities, enter the graduate school.

In this connection it is desirable to call attention to the fact that the degrees granted by American and foreign universities respectively are by no means equivalent. Much work that is done by

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<sup>o</sup> This consolidation is not effected everywhere; for example, Columbia University maintains a faculty of philosophy, a faculty of political science, and a faculty of pure science; Harvard University has a graduate school of arts and sciences, a graduate school of business administration, a graduate school of applied biology, and a graduate school of medicine. The general description of the functions and facilities of the graduate school applies equally, however, to these and to other institutions which have not combined graduate departments into a single unit.

students in the French lycée or the German Gymnasium is included in the undergraduate curriculum of the American college or university. It is generally conceded that a student who holds a baccalaureate from a French lycée or the Abiturientenzeugnis of the German Gymnasium may be ranked with students who have finished the second year at an American college or university. Foreign students who hold degrees, therefore, from recognized European or Latin-American universities should find no difficulty in registering for advanced degrees at American universities. Those who demonstrate that they have already fulfilled a portion of the scholarly requirements for advanced degrees will be able in many instances to reduce the amount of required residence.

The American graduate school has a double aim. Chronologically, the first is to teach the properly prepared students the most advanced and specialized phases of the subjects offered by the university. More important, however, if second in point of development, is its obligation to increase the sum of human knowledge. Research is the life blood of the graduate school. The graduate school is differentiated from the ordinary professional schools by being devoted to the principle of research. As a rule, schools of medicine and engineering, for instance, aim primarily to pass on to the student a body of knowledge which is already organized and of accepted professional value, and so to train practitioners of already standardized professions. The graduate school places first emphasis upon the advancement of learning. Its teachers are expected to be actively engaged in extending the boundaries of knowledge and to direct students in the conduct of investigations. The vitality of the graduate school is properly judged by the amount and quality of its creative output.

Training for productive scholarship is still young in the United States. In view of its aims the graduate school is less susceptible to standardization than the schools already described. Its excellence will always depend in large measure on the fertility and originality of its teachers. No two schools however skillfully administered can be equal or equally strong throughout; nor, on the other hand, is a single school ever likely to have a monopoly of teaching and investigating talent in all lines. One will perhaps be pre-eminent in psychology, another in economics, another in chemistry. This variation inheres in graduate study. It has always characterized the research departments of European universities, which have had a considerably longer history.

Granting these inevitable inequalities, it is worthy of note that the great independent institutions of the East and the best-developed State universities of the West and Middle West have taken the

steps needed to secure a high general level of graduate instruction. They have invested enormous sums in library and laboratory equipment and have vied with one another in seeking as teachers the most distinguished scholars wherever they might be found. As a result of these efforts, no better material facilities for advanced study and research now exist anywhere. Certain American professors also rank with the leaders in their respective branches and have won international recognition. In fact, no other department of American higher education except the medical school has experienced so rapid and substantial a development. Most graduate schools have been established within 25 years. National appreciation of the value of research, which has made this last expansion of the university possible, is hardly 15 years old, yet the enrollment in graduate courses in the United States has increased from 4,340 in 1893 to 7,911 in 1903, and to 16,470 in 1916. A correspondingly increased volume of scientific monographs has issued from the universities.

It is therefore safe to say that students from abroad will now find in the graduate schools of the foremost American universities opportunities for special training and for research broadly equivalent to those provided by the faculties of philosophy and the scientific institutes of the universities of Europe. Such students will naturally seek those institutions which offer the best facilities and which possess the most eminent teachers in the particular lines in which they are interested.

Another function of the graduate school has been the training of teachers for higher institutions. Indeed it is now customary for appointing authorities to demand of candidates for higher teaching positions a more or less extended period of graduate study. Nevertheless there has been as yet no general adaptation of graduate courses to the professional needs of the prospective teacher. American graduate schools, like the universities of Europe, have in this matter proceeded on the assumption that the most important thing for the teacher of mature pupils is to know his subject. The method of its presentation may then safely be left to his individual judgment.

The typical American graduate school admits as students only those who hold a bachelor's degree from a college or university of recognized standing. It confers two orders of degree, the master's degrees<sup>10</sup> and the doctor's degrees.<sup>11</sup>

To secure a master's degree one year of postgraduate study, devoted as a rule to not more than three subjects, one of which, called the major subject, receives the bulk of the student's attention, is

<sup>10</sup> A. M., M. Com. Sci., M. F., M. L., M. Ped., M. S., M. S. in Agr., Cer. Eng., Chem. Eng., C. E., E. E., E. Min., Mech. E., Met. E.

<sup>11</sup> Ph. D., Sc. D., D. Eng., Phar. D.

usually required.<sup>12</sup> Most universities also demand a thesis embodying the results of a small piece of research.

The minimum period of postgraduate study for a doctor's degree is usually three years. The time spent and the number of courses taken, however, are of secondary importance. As in the case of the master's degree a student pursues not more than three subjects, the major subject requiring the greater part of his time and attention. To receive the degree it is necessary that the candidate not only demonstrate in examination his mastery of his special field but also by means of a dissertation or thesis make an original contribution to knowledge in that field. Most universities require the dissertation to be published. Limited facilities for this purpose are possessed by nearly all the universities whose offerings are listed later in this pamphlet. The examinations are both written and oral. In fact, the requirements for the American degree of doctor of philosophy parallel closely those proposed by the German universities for the same degree. But American universities have recently attempted to demand of candidates for the degree a somewhat longer scholarly preparation and a more substantial thesis.

#### FELLOWSHIPS AND SCHOLARSHIPS.

For the encouragement of research work each university usually awards a number of fellowships and scholarships to graduate and professional students who show exceptional ability and promise. The stipend connected with these fellowships and scholarships ordinarily varies from \$100 to \$600 in the several institutions. The holders of these fellowships are sometimes required to teach from one to six hours a week in undergraduate classes.<sup>13</sup> Foreign students will usually find it necessary and desirable to spend at least a year in residence at an American university before their applications for scholarships and fellowships will be considered favorably.

#### SOCIAL LIFE.

Although the social life chiefly in evidence at American universities is primarily of interest to undergraduate students, social opportunities for graduate students are by no means neglected. Foreign students will naturally find the cosmopolitan clubs existing at many universities of great assistance in adjusting themselves to American conditions. These clubs are composed of both foreign and American students, who are thus afforded excellent opportunities to become

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<sup>12</sup> Two years of postgraduate study are ordinarily required for the master's degrees at Yale and Johns Hopkins Universities.

<sup>13</sup> For example, the Austin teaching fellowships at Harvard University, holders of which receive \$500 and are expected to devote about half of their time to teaching; also the Harrison senior fellowships at the University of Pennsylvania, holders of which receive \$800 and are expected to offer a single course of lectures.

acquainted and to exchange ideas. Entertainments and lectures are held at intervals throughout the university year. A reading room containing newspapers and magazines is usually maintained at the expense of the club, and in some instances there are also facilities for board and room. At nearly all universities also the graduate students maintain an organization called the "Graduate Club." The purposes of this organization are primarily social, and opportunity is thus afforded for graduate students to meet others who are interested in the various lines of research represented at the university.

#### TRAVEL.

Not the least advantage to a foreign student pursuing his university work here will be the opportunity to observe the people and the customs of an alien nation. He should therefore strive to extend his observations as widely as possible. Railroad travel costs on the average 3.6 cents a mile; a seat in an individual chair car, called a "Pullman" car, costs approximately one-half a cent a mile extra. A berth in a sleeping car costs about  $\frac{1}{4}$  of a cent a mile extra. Good hotel accommodations may be had—depending upon the place—from \$3.50 a day, including meals, up. For a longer sojourn in city communities, good board and room may be secured at rates ranging from \$10 a week up. In the country one may occasionally find satisfactory board and lodging for less.

In order that prospective students may gain a more adequate idea of the expense of traveling in the United States, the following table of distances between important cities is included:

*Distance (in miles) from—*

	New York.	San Francisco.	New Orleans.
New York.....	.....	3, 183	1, 344
Chicago.....	960	2, 280	930
Philadelphia.....	90	3, 098	1, 254
St. Louis.....	1, 127	2, 294	717
Boston.....	232	3, 312	1, 576
Baltimore.....	185	3, 076	1, 158
San Francisco.....	3, 183	.....	2, 477
New Orleans.....	1, 344	2, 477	.....
Washington, D. C.....	225	3, 116	1, 118

#### THE ASSOCIATION OF AMERICAN UNIVERSITIES.

The development of ideals of graduate instruction and the determination of minimum standards, as far as these may be practically applied, have resulted during the last 18 years from the work of the Association of American Universities. Mention was made on

an earlier page of the tendency of educational interests in the United States to form voluntary associations for the purpose of defining standards and bringing about the mutual advancement of the members. The Association of American Universities was formed in 1900 by a group of 14 institutions, which then had well-developed graduate schools. Since that time the membership of the association has been increased to 24. The stated qualification for membership is that an institution must be engaged in giving advanced or graduate instruction. In practice the association has admitted to its ranks only those institutions giving graduate work of recognized quality leading to the highest graduate degrees. While, therefore, there are several other reputable institutions in the United States outside of the membership of the association which offer graduate instruction, it is assumed that the foreign student, desiring to pursue some line of advanced study, would naturally be especially interested in the offerings of the members of this body. In the following pages there is presented a summary of the conditions of graduate work at each of these institutions. A few of the stronger graduate schools outside the membership of the association are also included in the summary. While this summary attempts to indicate the branches of learning for the pursuit of which each of these universities offers especial advantages, it is not intended to be a complete account of the university's offerings. Foreign students are urged to correspond with the registrars of the institution or institutions they may choose to attend, for full information.

#### HIGHER DEGREES.

A. E. or Agr. E.	-----Agricultural Engineer.
A. M. or M. A.	-----Master of Arts.
Arch.	-----Architect.
Arch. Eng.	-----Architectural Engineer.
B. D. or D. B.	-----Bachelor of Divinity.
Cr. E.	-----Ceramics Engineer.
Ch. E. or Chem. E.	-----Chemical Engineer.
C. E.	-----Civil Engineer.
C. P. H.	-----Certificate in Public Health.
D. C. L.	-----Doctor of Civil Law.
D. Sc., Sc. D. or S. D.	-----Doctor of Science.
D. Sc. in Hygiene	-----Doctor of Science in Hygiene.
D. P. H. or Dr. P. H.	-----Doctor of Public Health.
D. Sc. in Phm.	-----Doctor of Science in Pharmacy.
Ed. D.	-----Doctor of Education.
Ed. M.	-----Master of Education.
E. E. or Elec. E.	-----Electrical Engineer.
E. M.	-----Engineer of Mines.
El. Met.	-----Electrometallurgist.
Graduate in Architecture.	

**Graduate in Education.****Graduate in Public Health.**

J. C. D.	Doctor in Canon Law.
J. C. L.	Licentiate in Canon Law.
J. D. or Jur. D.	Doctor of Law.
J. S. D.	Doctor of Science in Law.
LL. M.	Master of Laws.
Mar. E.	Marine Engineer.
M. Arch.	Master of Architecture.
M. A. in Education.	
M. A. in Municipal Administration.	
M. B. A.	Master in Business Administration.
M. C. E.	Master of Civil Engineering.
M. C. L.	Master of Civil Law.
M. C. S.	Master of Commercial Science.
M. D.	Doctor of Medicine.
M. E. or Mech. E.	Mechanical Engineer.
M. E. E.	Master of Electrical Engineering.
Met. E.	Metallurgical Engineer.
M. F.	Master of Forestry.
M. L.	Master of Literature.
M. L. A.	Master of Landscape Architecture.
M. L. D.	Master of Landscape Design.
M. M. E.	Master of Mechanical Engineering.
M. Péd.	Master of Pedagogy.
M. S. A.	Master of Scientific Agriculture.
M. S. or S. M.	Master of Science.
M. S. F.	Master of Scientific Forestry.
M. S. in Agr.	Master of Science in Agriculture.
M. S. in Arch.	Master of Science in Architecture.
M. S. or S. M. in Civil Engineering.	
M. S. or S. M. in Electrical Engineering.	
M. S. in Education.	
M. S. in Mechanical Engineering.	
M. S. or M. Sc. in Engineering.	
M. S. in For.	Master of Science in Forestry.
M. S. in Min. E.	Master of Science in Mining Engineering.
M. S. in Municipal Administration.	
M. S. in Phm.	Master of Science in Pharmacy.
M. S. or M. Sc. in Public Health.	
M. S. T. or S. T. M.	Master of Sacred Theology.
Nav. Arch.	Naval Architect.
Pd. D.	Doctor of Pedagogy.
Pd. M.	Master of Pedagogy.
Ph. D.	Doctor of Philosophy.
Ph. C.	Pharmaceutical Chemist.
Phar. D.	Doctor of Pharmacy.
S. M. in Sanitary Engineering.	
S. J. D.	Doctor of Science in Law.
S. T. B.	Bachelor of Sacred Theology.
S. T. D.	Doctor of Sacred Theology.
Th. D.	Doctor of Theology.

## OFFERINGS OF GRADUATE WORK AT UNIVERSITIES AND COLLEGES.

In the following pages there is presented a summary of the offerings of graduate work at each of these institutions. A few of the stronger graduate schools outside the membership of the association are also included in the summary. As one means of indicating the strength of graduate work at the respective institutions the number of M. A., M. S., and Ph. D. degrees conferred in each subject during the three years 1916-1918, inclusive, have been included with the summary for each institution. It has not been feasible to include the other higher degrees.

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**UNIVERSITY OF CALIFORNIA, Berkeley, Calif., a city of 56,036 inhabitants, 35 minutes by train from San Francisco. Founded, 1868; a "land-grant" institution; coeducational.**

Admission: Bachelor's degree from a recognized college.

Degrees:

M. A., M. S.—One year of postgraduate study; thesis.

Ph. D.—At least two years of postgraduate study; thesis.

J. D.—Two years of postgraduate study; thesis.

Graduate in Architecture.—Two years of postgraduate study; thesis.

Graduate in Public Health.—Two years of postgraduate study.

Graduate in Education.—Two years of postgraduate study.

M. E., E. E., E. M., Metallurgical E.—These degrees are conferred upon graduates of engineering colleges who, at least three years after receiving the bachelor's degree, one of which must have been spent in professional work, successfully pass an examination in prescribed subjects and present a thesis.

C. E.—At least three years of postgraduate study and thesis.

The engineering degrees will also be conferred upon those holding bachelor's degrees from the University of California who, at least 10 years after graduation, in addition to evidence of exceptionally successful professional work, present a satisfactory thesis.

Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Laboratories in chemistry; museum of vertebrate zoology; anthropological museum; Lick Astronomical Observatory; Scripps Institution for Biological Research; and the Graduate School of Tropical Agriculture.

B. Library facilities: 403,000 volumes. In addition thereto is the valuable and extensive Bancroft Library of Pacific Coast History.



Noteworthy facilities for particular lines of graduate study—Continued.

C. Facilities for the publication of research results: The University of California Press—(a) Serial publications in agricultural sciences, American archaeology and ethnology, astronomy, botany, classical philology, economics, education, Egyptian archaeology, engineering, entomology, geography, geology, Græco-Roman archaeology, history, mathematics, modern philology, pathology, philosophy, political science, psychology, seismography, Semitic philology, and zoology; (b) Publications of the Lick Observatory; (c) University of California Prize Essays; (d) bulletins of the Agricultural Experiment Station.

Number of M. A., M. S., and Ph. D. degrees granted during the years 1916-1918, listed according to the major subject pursued:

M. A.:	M. A.—Continued.	M. S.—Continued.
History..... 42	Research medi- cine..... 2	Mechanics..... 1
English..... 44	Sociology..... 1	Mining..... 1
Anthropology..... 3	Epigraphy..... 1	Total..... 61
Economics..... 16	Oriental languages 1	
Pathology..... 3	Entomology..... 2	Ph. D.:
Philosophy..... 3	Domestic art..... 1	Botany..... 4
Graphic art..... 6		Chemistry..... 8
Chemistry..... 11	Total..... 325	Plant pathology.. 2
Mathematics..... 21		Economics..... 1
Latin..... 14	M. S.:	History..... 9
Education..... 31	Citriculture..... 6	Physics..... 3
Botany..... 17	Chemistry..... 9	French..... 1
Spanish..... 7	Agronomy..... 4	Astronomy..... 4
Biochemistry..... 2	Agricultural edu- cation..... 5	Soil chemistry.... 3
German..... 16	Plant pathology.. 7	Zoology..... 6
Household science 1	Electrical engi- neering..... 5	Palæontology... 3
Anatomy..... 1	Mechanical engi- neering..... 1	Mathematics..... 4
Architecture..... 9	Forestry..... 3	Spanish..... 1
French..... 11	Physics..... 1	Physiology..... 2
Zoology..... 15	Viticulture..... 2	Geology..... 3
Palæontology... 2	Soils..... 1	Philosophy..... 2
Mineralogy..... 1	Irrigation..... 2	Political science.. 2
Drawing..... 2	Economics..... 3	Inorganic chemis- try..... 1
Slavic..... 1	Civil engineering. 1	Pomology..... 1
Semitics..... 1	Rural institutions. 2	Biochemistry.... 1
Psychology..... 6	Geology..... 1	Education..... 1
Geology..... 2	Pomology..... 3	Classical archæol- ogy..... 1
Physiology..... 6	Agricultural chemistry..... 1	Physical chemis- try..... 3
Nutrition..... 4	Entomology..... 2	Total..... 66
Political science.. 7		
Physics..... 4		
Astronomy..... 1		
Hygiene..... 2		
Public health.... 4		
Pathology and bacteriology.... 1		

#### Expenses:

Tuition (free for residents of State) for nonresidents of State----	\$20
Board and lodging, per month-----	30-45
Total annual expense need not exceed-----	500

**CATHOLIC UNIVERSITY OF AMERICA**, Washington, D. C., a city of 437,571 inhabitants, the capital of the country. Founded 1887.

School of Philosophy—Graduate Department:

Admission: Bachelor's degree from a recognized college.

Degrees:

Ph. M.—Two years of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis.

**School of Letters—Graduate Department:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

A. M.—One year of postgraduate study; thesis.

L. H. M.—Two years of postgraduate study; thesis.

Ph. D. Three years of postgraduate study; thesis.

L. H. D.—As for Ph. D.

**School of Sciences—Graduate Department:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

A. M.—One year of postgraduate study; thesis.

M. S., E. E., C. E., M. E.—Two years of postgraduate study; thesis.

Sc. D., Ph. D.—Three years of postgraduate study; thesis.

**School of Sacred Sciences—Graduate courses:****Degrees:**

S. T. L. or J. C. L.—Two years of postgraduate study; thesis.

S. T. D. or J. C. D.—Four years of postgraduate study; thesis.

**School of Law—Graduate Department:**

Admission: Bachelor's degree from a recognized college and LL. B. from the University Law School or from some law school of recognized standing.

**Degrees:**

LL. M., M. C. L.—One year of postgraduate study; thesis.

J. D.—Two years of postgraduate study after LL. M.; thesis.

D. C. L.—Two years of postgraduate study after M. C. L.; thesis.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds: Chemical laboratories. Special funds for research in alcohol and alcoholism.

B. Library facilities: 120,000 volumes. Special collections relating to the Bible, Orientalia, sociology, Marylandiana, Shakespeare, Dante. The Library of Congress and other large libraries located in Washington are also easily available for use.

C. Facilities for the publication of research results: The Corpus Scriptorum Christianorum Orientalium; The Catholic Historical Review; The Catholic Charities Review.

Number of M. A. and Ph. D. degrees granted during the three years, 1916-1918, listed according to the major subject pursued:

M. A.:	M. A.:—Continued.	Ph. D.:—Continued.
Philosophy..... 7	Physics..... 3	History..... 1
Psychology..... 12	Chemistry..... 2	Political science.. 1
Education..... 20	Biology..... 2	Economics..... 1
History..... 37	Architecture.... 1	English..... 4
Political science.. 6		Latin..... 5
Economics..... 10	Total..... 127	Greek..... 2
English..... 8		Syriac..... 1
Latin..... 8	Ph. D.:	Mathematics..... 2
Greek..... 2	Philosophy..... 3	Chemistry..... 2
French..... 1	Psychology..... 2	
German..... 1	Education..... 4	Total..... 28
Mathematics..... 7		

**Expenses:**

Tuition.....	\$150.00
Diploma fee, master's degree.....	15.00
Diploma fee, doctor's degree.....	25.00
Board (at university) per month.....	30.00
Room (at university) per month.....	8.50-20.00
Total annual expense, \$500 and upward.	

**CLARK UNIVERSITY**, Worcester, Mass., a city of 179,754 inhabitants. Founded, 1887; co-educational; offers instruction in eight graduate departments only.

**Admission:** Bachelor's degree from a recognized college, or the equivalent.  
**Degrees:**

A. M.—At least one year of postgraduate study; thesis.

Ph. D.—At least one year, but in most cases three years, of postgraduate study; thesis.

The university is strictly a graduate school. It is devoted primarily to research, secondarily to the training of investigators and teachers. For both these ends it emphasizes the importance of close personal relations between professors and students. Its small student body and large teaching staff have enabled it to foster these relations.

**Noteworthy facilities for particular lines of graduate study:**

**A. Equipment and research funds:** Pedagogical museum; facilities for research in genetic psychology. Special funds exist for research in physics and chemistry. Especially noteworthy, both on account of the eminence of the instructors and the comprehensiveness of the courses, is the work in education, under which head is included instruction in psychology and pedagogy. The university is one of the few in the country to possess an excellently well-equipped pedagogical museum. A children's institute provides special facilities for various branches of child study.

**B. Library facilities:** Seventy-five thousand volumes. The public library of Worcester, containing 200,000 volumes, is available for the use of students.

**C. Facilities for the publication of research results:** The following journals are connected unofficially with the various departments of the university: (1) The American Journal of Psychology. (2) The Pedagogical Seminary, (3) The Journal of Race Development, (4) The Journal of Applied Psychology.

Number of A. M. and Ph. D. degrees granted during the three years, 1916-1918, listed according to the major subject pursued:

A. M.:		A. M.:—Continued.		Ph. D.—Continued.	
Mathematics.....	2	Pedagogy.....	13	Psychology.....	17
Chemistry.....	10			Pedagogy.....	4
Biology.....	3	Total.....	75	Sociology.....	4
Psychology.....	20			History.....	3
Sociology.....	7	Ph. D.:		Physics.....	2
History.....	16	Mathematics.....	2		
Physics.....	4	Chemistry.....	3	Total.....	35

Expenses: Tuition, \$100; total annual expense \$300 and upward.

**UNIVERSITY OF CHICAGO**, Chicago, Ill., a city of 2,701,705 inhabitants, and one of the great railway centers of the country. Incorporated, 1890; coeducational.

The Graduate Schools (Graduate School of Arts and Literature; Ogden Graduate School of Science):

**Admission:** Bachelor's degree from a recognized college.

**Degrees:**

A. M. and M. S.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis. The doctor's degree is given "not on the basis of the completion of a certain amount of time spent on a specified program, but as the recognition and mark of high attainments and ability in the candidate's chosen province."

**School of Education—Graduate Department:**

Admission: Bachelor's degree from a recognized college.

Degrees: A. M., M. S., Ph. D., conferred by the Graduate Schools of Arts, Literature, and Science.

**College of Commerce and Administration—Graduate Departments:**

Admission: Bachelor's degree from a recognized college.

Degrees: A. M. and Ph. D.—Conferred under the same conditions as in the Graduate Schools.

**Graduate Divinity School:**

Admission: Bachelor's degree from a recognized college.

Degrees:

A. M.—One year of postgraduate work; thesis.

D. B.—Three years of postgraduate work; thesis.

Ph. D.—Four years of postgraduate work; thesis.

**Law School—Graduate course:**

Admission to J. D. course: Three years of collegiate work. Before receiving the J. D., students must receive a bachelor's degree from the College of the University of Chicago or from an equivalent college. The first year in the Law School may be counted toward this, and the bachelor's degree be awarded at its completion.

Degree: J. D.—Two or more years of postgraduate work, dependent upon whether the undergraduate work has included one year of law.

Courses offered in the Graduate Schools are of the highest rank. Opportunities for specialization are offered in the following departments: Philosophy, psychology, education, political economy, political science, history, history of art, sociology and anthropology, household administration, comparative religion, Semitic languages and literatures, Biblical and patristic Greek, Sanskrit and Indo-European comparative philology, Greek, Latin, romance, Germanic, English language and literature, general literature, mathematics, astronomy and astrophysics, physics, chemistry, geology, geography, zoology, anatomy, physiology, paleontology, botany, pathology, hygiene, and bacteriology.

Note-worthy facilities for particular lines of graduate study:

- A. Equipment and research funds: Excellent facilities for graduate research work in laboratories for physics, chemistry, geology, botany, bacteriology, anatomy, physiology, and zoology. The Walker Museum contains mineralogical, anthropological, paleontological, and geological collections. The Haskell Oriental Museum contains collections relating to Egypt, Babylonia, Assyria, comparative religion, and Biblical antiquities. There are also opportunities for advanced work in astronomy at the Yerkes Astronomical Observatory.
- B. Library facilities: 545,890 volumes. The library has strong collections in Government publications; publications of learned societies; American history, particularly of the Central West and Southern States; American and English literature; Celtic; Germanic literature from 1750 to 1870; Russian history and literature; and sociology. Other large libraries located in Chicago, including the Newberry Library, 370,831 volumes, John Crerar libraries, 380,670 volumes, and the Chicago Public Library, 806,172 volumes, are easily accessible to graduate students.
- C. Facilities for the publication of research results: Chicago University Press, which publishes the *Biblical World*, the *Botanical Gazette*, the *Astrophysical Gazette*, the *Journal of Geology*, the *American Journal of Sociology*, the *Journal of Political Economy*, the *American Journal of Theology*, the *American Journal of Semitic Languages and Literatures*, *Classical Philology*, the *Classical Journal*, *Modern Philology*, and the *English Journal*.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:	M. S.—Continued.	Ph. D.—Continued.
Philosophy..... 9	Geology..... 1	Oriental languages and literatures.. 2
Psychology..... 6	Geology and pale- ontology..... 2	Latin..... 11
Education..... 87	Geography..... 7	Romance..... 9
Political economy 5	Zoology..... 6	German..... 11
Political science.. 4	Anatomy..... 1	English..... 16
Commerce and ad- ministration.... 6	Physiology..... 30	Semitics..... 2
History..... 54	Botany..... 32	Mathematics..... 41
History of art.... 1	Pathology..... 3	Astronomy..... 21
Sociology and an- thropology..... 12	Hygiene and bac- teriology..... 2	Physics..... 38
Greek..... 4	Total..... 155	Chemistry..... 36
Household admin- istration..... 4		Geology..... 3
Latin..... 24	Ph. D.:	Geology and pale- ontology..... 15
Romance..... 14	Philosophy..... 13	Geography..... 3
English..... 44	Psychology..... 28	Zoology..... 10
General literature. 6	Education..... 20	Anatomy..... 10
German..... 24	Political economy 7	Physiology..... 19
Total..... 304	Political science.. 7	Paleontology..... 2
	History..... 15	Botany..... 57
	History of art.... 1	Physiological chemistry..... 6
M. S.:	Sociology and an- thropology..... 10	Pathology..... 7
Mathematics..... 25	Greek..... 10	Hygiene and bac- teriology..... 7
Astronomy..... 6	Sanskrit..... 2	Total..... 439
Physics..... 10		
Chemistry..... 30		

#### Expenses:

Matriculation.....	\$5
Tuition, all graduate schools.....	120
School of Law.....	150
Diploma fee, M. A., M. S., etc.....	10
Diploma fee, Ph. D. (with hood).....	15
Room (university dormitory).....	60-225
Board (university commons).....	135-225
Total annual expense.....	340-715

**COLUMBIA UNIVERSITY, New York, N. Y., a city of 5,620,048 inhabitants. Founded, 1754.**

#### Graduate faculties:

The Faculties of Political Science, Philosophy and Pure Science offer courses of advance nonprofessional instruction and opportunities for specialized study and original research in the following departments: Anatomy, anthropology, astronomy, bacteriology, biological chemistry, botany, chemical engineering, chemistry, civil engineering, economics, electrical engineering, educational research, English and comparative literature, geology, Germanic languages, Greek and Latin, history, Indo-Iranian, mathematics, mechanical engineering, metallurgy, mineralogy, mining, music, pathology, philosophy, physiology, psychology, physics, public law, Romance languages, Semitic languages, Slavonic languages, social science, zoology.

**Admission:** Bachelor's degree from a recognized college or its equivalent.

**Degrees:**

A. M.—Minimum of one year of graduate study, and essay.

Ph. D.—Minimum of two years of graduate study (one of which must be at Columbia University), and dissertation.

**Schools of Mines, Engineering, and Chemistry:**

**Admission:** Three years' work in an approved college or scientific school.

**Degrees:** E. M., Met. E., C. E., E. E., Mech. E., Chem. E.—Three years' study.

**College of Pharmacy—Graduate course:**

**Admission:** Ph. C. degree.

**Degrees:**

B. S. in Pharmacy—One year of postgraduate study.

Phar. D.—Three years of postgraduate study.

**School of Journalism—Graduate course:**

**Admission:** B. Lit. degree.

**Degree:** M. S.—One year after B. Lit.

**School of Law:**

**Admission:** Three years' collegiate work.

**Degrees:**

LL. B.—Three-year course.

LL. M.—One year of study after LL. B.

**School of Business—Graduate course:**

**Admission:** B. S. degree.

**Degree:** M. S.—One year after B. S.

**Teachers' College:**

**School of Practical Arts.—Graduate course:**

**Admission:** B. S. degree in education or in practical arts.

**Degree:** M. S.—One year of postgraduate work.

**School of Education:**

**Admission:** Bachelor's degree from a recognized college.

**Degree:** A. M.—One year of study.

The School of Education of Teachers College offers to advanced students extensive courses in the history and philosophy of education, educational psychology and sociology, theory and practice of educational administration, supervision, and class teaching.

The location of Columbia, in America's most populous city, the liberal endowment, the large number of valuable scholarships, and especially the high standing of the university in all departments have combined to draw to it in the past a great many foreign students.

The following departments are among those especially noteworthy, either because of the eminence of the men connected with them or because of the wide range of the courses offered: Mathematics, physics, biology, botany, geology, chemistry, Oriental and Semitic languages, Germanic languages and literature, English, history, economics and politics, anthropology, philosophy, and psychology.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds: Special chemical laboratories, including research for cancer. The facilities of various hospitals, the American Museum of Natural History, and the New York Botanical Garden are also at the disposal of students. Close informal relations are maintained with the Rockefeller Institute of Medical Research, the new Zoological Garden, the New York Aquarium, and the New York School of Social Work.

Noteworthy facilities for particular lines of graduate study—Continued.

B. Library facilities: 712,000 volumes. Noteworthy special collections relating to Columbian, architecture and decorative art, Mary Queen of Scots, Goethe, Kant, Grotius, philology, mathematics, astronomy, and music. Many other large libraries located in New York City (including the New York Public Library, 1,065,196 vols.) are also open to the use of graduate students.

C. Facilities for the publication of research results: (1) The Columbia University Press: Columbia University Germanic studies, Indo-Iranian series, Oriental studies, studies in classical philology, studies in English and comparative literature, studies in history, economics, and public law, studies in Romance philology and literature, contributions to anthropology, contributions to Oriental history and philology. (2) Columbia University Contributions to Education (philosophy, psychology, and education).

Number of M. A., M. S., and Ph. D. degrees granted during the three years, 1916-1918, listed according to the major work pursued:

M. A.:		M. A.—Continued.		M. S.—Continued.	
Agriculture.....	2	Politics.....	32	Business.....	11
Administrative law.....	1	Psychology.....	33	Chemical engineering.....	1
Anthropology....	2	Romance languages.....	39	Education.....	2
Astronomy.....	2	Semitic languages.....	4	Total.....	70
Bacteriology.....	12	Slavonic languages.....	4		
Biological chemistry.....	15	Social economy.....	48	Ph. D.:	
Botany.....	18	Sociology and statistics.....	62	Agriculture.....	1
Chemistry.....	78	Zoology.....	22	Astronomy.....	1
Comparative literature.....	12	Classical philology.....	5	Anthropology....	1
Constitutional law.....	14	English and comparative literature.....	46	Bacteriology.....	4
Education.....	51	Metallurgy.....	4	Biological chemistry.....	11
English.....	113	Pathology.....	2	Botany.....	4
Geography.....	1	Phonetics.....	1	Chemistry.....	23
Geology.....	12	Public law.....	6	Comparative literature.....	1
Germanic languages.....	54	Music.....	1	Constitutional law.....	2
Highway engineering.....	1	Neurology.....	2	Chemical engineering.....	3
History.....	154	Greek.....	2	Classical philology.....	3
Indo-Iranian....	6	Total.....	1,077	Education.....	39
International law	9			English.....	6
Latin.....	33	M. S.:		English and comparative literature.....	5
Mathematics....	42	Electrical engineering.....	15	Geology.....	6
Mathematical physics.....	2	Highway engineering.....	10	Geography.....	1
Mechanical engineering.....	1	Mechanical engineering.....	22	Germanic languages.....	4
Philosophy.....	47	Metallurgy.....	7	Greek.....	1
Physics.....	9	Architecture....	2	History.....	26
Physiology.....	6			International law	3
Political economy	67				

Ph. D.—Continued.		Ph. D.—Continued.		Ph. D.—Continued.	
Jurisprudence...	1	Political econ-		Semitic lan-	
Latin.....	2	omy.....	20	guages.....	6
Mathematics....	8	Physiology.....	1	Social economy..	3
Mathematical		Psychology.....	12	Sociology and sta-	
physics.....	1	Politics.....	4	tistics.....	7
Metallurgy.....	1	Public law.....	2	Zoology.....	9
Pathology.....	1	Romance lan-		Total.....	252
Philosophy.....	10	guages.....	15		
Physics.....	4				

## Expenses:

University fee, per session.....	\$5
Tuition, based on amount of work taken, average.....	200-260
Diploma fee, master's degree.....	25
Diploma fee, doctor's degree.....	35
Board, university commons.....	160-225
Room, university dormitory.....	90-190
Total annual expense, estimated.....	545-985

**CORNELL UNIVERSITY, Ithaca, N. Y., a city of 17,004 inhabitants. Founded, 1865; a "land-grant" institution; coeducational.**

Admission: Bachelor's degree from a recognized college.

## Degrees:

A. M., M. Arch., M. C. E., M. M. E., M. F., M. S., M. S. in Agr., Master in Landscape Design.—One year postgraduate study; thesis.

Ph. D.—Three years' graduate study; thesis.

The Graduate School has exclusive control of graduate work in all divisions of the university. It offers opportunities for advanced study and research in most of the important fields of knowledge, under the direct guidance of members of the faculty *and unhampered by formal restrictions*.

Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Facilities in psychology and philosophy, history, chemistry, entomology, botany, soil technology, and practical agriculture. Special funds for research in agriculture, engineering, philosophy and psychology, physics, and medicine.

B. Library facilities: Number of volumes in the university library and special libraries, 460,000. Special collections relating to Egyptology and Assyriology, classical languages and literatures, oriental languages and literatures, Anglo-Saxon, English history, American history, American slavery and antislavery, folklore, Russian history and literature, the Reformation, the English and French Revolutions, the American Civil War, history of superstition, Goethe, Cowper, Spinoza, Dante, Petrarch, Rhaeto-Romance, Ireland, German philology and literature, South America, 16th and 17th Century French and Italian society, veterinary science, architecture, and mathematics.

C. Facilities for the publication of research results: Physical Chemical Journal; Sibley Journal; The American Journal of Psychology; The Philosophical Review; Cornell University studies in classical philology, English, philosophy, history, and economics.

Number of M. A., M. S., and Ph. D. degrees granted during the three years, 1916-1918, listed according to the major work pursued:



M. A.:		M. A.—Continued.		Ph. D.—Continued.	
English.....	11	Modern European		Medieval history..	2
German.....	10	history.....	1	Inorganic chemis-	
Philosophy.....	5	Analytical chem-		try.....	8
Latin.....	6	istry.....	1	Farm crops.....	1
Botany.....	8	Physical geog-		Histology and em-	
Comparative mor-		raphy.....	1	bryology.....	1
phology.....	1	Limnology.....	1	Botany.....	2
Insect morphology	1	Total.....	89	Biological chemis-	
Insect morphology				try.....	1
and histology...	1			Biology.....	3
Veterinary sur-		M. S.:		Entomology.....	2
gery.....	1	Wood technology.	1	English history...	1
Bacteriology.....	1	Dairy bacteriology	1	Experimental	
Zoology.....	2	Economic ento-		physics.....	7
Economic geology	2	mology.....	1	Politics.....	1
Comparative pa-		Foods and nutri-		Economic theory.	1
thology.....	1	tion.....	1	Rural engineering.	1
Paleontology and		Veterinary bacte-		Electrophysics...	1
stratified geol-		riology.....	1	Mathematical	
ogy.....	1	Total.....	5	analysis.....	1
Biology.....	1			Insect morphology	2
Education.....	1	M. S. in Agr.....	46	Bridge engineer-	
French.....	3			ing.....	1
Psychology.....	1	Ph.D.:		Sanitary engineer-	
American history.	3	Hog cholera.....	1	ing.....	1
Experimental		Latin.....	3	Bacteriology.....	1
physics.....	2	Philosophy.....	4	Poultry breeding.	1
Chemical micro-		Plant physiology.	1	Pomology.....	1
scopy.....	1	Geometry.....	3	Mycology.....	1
Pure mathematics	2	Insect ecology...	1	Rural education	
Plant pathology...	1	Physiology.....	3	and economics.	1
Illumination.....	1	Psychology.....	5	Pathology.....	1
Histology.....	1	Physical chemis-		Spanish.....	1
Anatomy.....	1	try.....	4	Plant breeding...	3
Finance and ac-		Economic ento-		Dairy industry...	1
counting.....	1	mology.....	2	Poultry husbandry	1
Entomology.....	7	Experimental		Farm management	2
Plant breeding	2	physiology.....	1	Soil technology...	4
Spanish.....	1	Finance.....	2	Paleontology and	
Geometry.....	1	Economics.....	1	stratigraphy....	1
Mathematical		Plant pathology..	7	Total.....	104
analysis.....	1	Limnology.....	1		
Mathematics.....	2	Organic chemistry	5		
American litera-		Pure mathematics	1		
ture.....	1	American history.	3		

## Expenses:

Matriculation fee .....	\$5
Tuition .....	150
Board and room, per week.....	9-12
Diploma fee .....	20

**HARVARD UNIVERSITY**, Cambridge, Mass., a city of 109,694 inhabitants, adjoining Boston, 768,758 inhabitants. Founded in 1636, it is the oldest American university.

Graduate School of Arts and Sciences (advanced instruction in the arts and pure science) :

Admission: Bachelor's degree from a recognized college.

Degrees:

A. M.—At least one year of approved postgraduate study, completed with distinction.

Ph. D.—At least two years of advanced study; a thesis; examinations. "The requirements of time for the degree of doctor of philosophy are wholly secondary."

Graduate courses in Engineering School:

Admission: The possession of the bachelor of science degree.

Degrees:

S. M. (in Mechanical Engineering, in Electrical Engineering, in Civil Engineering, in Sanitary Engineering, in Industrial Chemistry; also Mining Engineer, and Metallurgical Engineer).—One year of postgraduate technical study beyond the requirement for the degree of bachelor of science.

S. D.—Requirements same as for Ph. D.

Graduate School of Business Administration (scientific instruction in principles of business organization and administration and in specialized branches of modern business) :

Admission: Bachelor's degree from a recognized college.

Degree: M. B. A.—Two years of postgraduate study; thesis.

Divinity School:

Admission: A. B. or equivalent.

Degrees:

S. T. B.—Three-year course.

S. T. M.—One year of advanced study after taking S. T. B.

Th. D.—Not less than two years of advanced study; thesis; examination.

Law School:

Admission: Bachelor's degree from recognized college.

Degrees:

LL. B.—Three-year course.

S. J. D.—One year of advanced study after taking LL. B.

Graduate course in Medical School:

Admission: Possession of M. D. degree.

Degree: D. P. H.—One year's study after taking M. D.

Graduate School of Medicine:

Admission: M. D.

Graduate Schools of Architecture and Landscape Architecture:

Admission: Bachelor's degree from recognized college.

Degrees: M. Arch. and M. L. A.

Graduate School of Applied Biology (Bussey Institution of Applied Biology) :

Admission: Bachelor's degree from recognized college.

Degrees:

S. M. and M. F.—Two years' course.

S. D.—Requirements same as for Ph. D.

**Graduate School of Education:**

**Admission:** Bachelor's degree from a recognized college.

**Degrees:**

**Ed. M.**—At least one academic year of graduate study; thesis.

**Ed. D.**—Not less than two years of graduate study, at least one of which must be spent in continuous residence at the university; thesis; examinations.

**Radcliffe College (affiliated with Harvard University; admits women only):**

**Graduate Department:**

**Admission:** Bachelor's degree from a recognized college.

**Degrees:**

**A. M.**—Requirements same as in Harvard College.

**Ph. D.**—Requirements same as in Harvard College.

The schools of engineering, architecture and landscape architecture, and forestry are strictly graduate schools, and therefore demand a more extended general and special training than is usually required to secure degrees in these departments.

**Noteworthy facilities for particular lines of graduate study:**

**A.** Equipment and research funds; Medical laboratories; Museum of Comparative Zoology; Gray Herbarium; Arnold Arboretum; Bussey Institution (applied biology); Jefferson Physical Laboratory; Wolcott Gibbs Memorial Laboratory (physical chemistry); Cruft Laboratory (high tension); Peabody Museum of American Archaeology and Ethnology; astronomical observatory; Blue Hill Observatory (meteorology); William Hayes Fogg Art Museum; Germanic Museum. There are also opportunities for research in the Harvard Bureau of Municipal Research and in the Bureau of Economic Research.

The Graduate School of Arts and Sciences is one of the best equipped graduate schools in the country. The following departments are especially noteworthy by reason of the outstanding eminence of the professors connected with them, or because of exceptional material equipment: Astronomy, biology, botany, chemistry, comparative literature, economics and sociology (called social ethics), education, English language and literature, Germanic languages and literatures, history and government, philosophy and psychology, Romance languages and literatures.

**B. Library facilities:** Total number of volumes in the university library, including the special and departmental libraries, 1,243,161. There are also a number of other large libraries in Boston and Cambridge, including the Boston Public Library (1,157,326 volumes), whose facilities are open to graduate students.

**C. Facilities for the publication of research results:** The Harvard University Press, which publishes economic studies; historical studies; studies in classical philology; Oriental series; studies in comparative literature; studies in English; studies in Romance languages; studies in education; studies in jurisprudence; psychological studies; studies and notes in philology and literature; business studies; theological studies; Radcliffe College monographs; contributions from the Jefferson Physical Laboratory; annals, bulletins, and annual reports of the astronomical laboratory; contributions from the zoological laboratory of the Museum of Comparative Zoology; and various periodical publications such as the Quarterly Journal of Economics.

Number of A. M., S. M., and Ph. D. degrees granted during the three years 1916-1918. The S. M. and Ph. D. degrees are listed according to the major subject pursued:

A. M.:		S. M.—Continued.		Ph. D.—Continued.	
Total.....	<sup>14</sup> 367	Sanitary engineer- ing.....	3	Biology.....	16
S. M.:		Forestry.....	1	Philology.....	52
Applied biology..	2	Zoology.....	3	Economics.....	10
Botany.....	3	Total.....	36	Chemistry.....	17
Civil engineering..	8			Political science..	5
Electrical engi- neering.....	10	Ph. D.:		Physics.....	8
Mechanical engi- neering.....	5	Philosophy.....	20	Geology.....	4
Mining engineer- ing and metal- lurgy.....	1	Mathematics.....	7	Pathology.....	1
		History.....	9	Medical sciences..	1
		Anatomy.....	1	Anthropology.....	3
		Education.....	10	Total.....	164

#### Expenses:

Tuition .....	\$200
Tuition, Radcliffe College.....	200
Diploma fee (Ph. D.).....	<sup>18</sup> 30
Diploma fee, Radcliffe College (Ph. D.).....	<sup>18</sup> 50
Bond from students.....	400
Rooms in dormitories.....	50-200
Board at Memorial Hall, per week.....	7
Board at Foxcroft Hall, à la carte.....	
Board, Radcliffe College.....	210
Room, Radcliffe College.....	72-324

UNIVERSITY OF ILLINOIS, Urbana-Champaign, Ill., a city of about 26,000 inhabitants, 126 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis. Founded, 1867; a "land-grant" institution; coeducational.

Admission: Bachelor's degree from a recognized college.

#### Degrees:

M. A. and M. S.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study with thesis giving evidence of research ability.

*Professional engineering degree.*—In addition to the usual master's degree, M. S., which is given for one year of postgraduate academic work in residence, professional degrees are given as indicated below:

For three years of successful professional work either in residence at or away from the university (the latter privilege being open, however, only to graduates of the University of Illinois), and the presentation of an acceptable thesis. The degrees are M. Arch., A. E., C. E., E. E., M. E., according to the course taken.

Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Physics laboratory especially equipped for conducting researches in mechanics, electricity, heat, and light; chemical laboratory well equipped for research in organic, quantitative, physiological, physical, and industrial chemistry; experimental

<sup>14</sup> Major subject not specified.

<sup>18</sup> Not charged to any student who has paid full tuition fee of \$200 for at least one year in Graduate Department.

<sup>20</sup> Not charged if examination for degree taken while in residence.

laboratories in genetics. The university has large funds, supplied in part by the State and in part by outside agencies for special investigations conducted by the Engineering Experiment Station. The State also supplies liberal funds for research in agriculture.

- B. Library facilities:** 444,783 volumes. Special collections relating to Illinois history; library economy; the classics and classical philology; German philology; Romance languages; pedagogy; statistics; Japan; German-American literature and history.
- C. Facilities for the publication of research results:** Bulletin of the Agricultural Experiment Station; Bulletin of the Engineering Experiment Station; State Laboratory of Natural Science Bulletin; Natural History Survey of Illinois; State Geological Survey Bulletin; State Geological Survey Monographs; State Water Survey Bulletin; Illinois Coal Mining Investigations Bulletin; Bulletins of the Bureau of Educational Research; Journal of English and German Philology; University Studies; Illinois Biological Monographs; University of Illinois Studies in the Social Sciences; University of Illinois Studies in Language and Literature; Illinois State Historical Survey.

Number of M. A., M. S., and Ph. D. degrees granted during the years 1916-1918, listed according to the major work pursued:

M. A.:		M. S.—Continued.		M. S.—Continued.	
		Chemistry.....	42	Zoology.....	5
Botany.....	4	Ceramic engineer-		Total.....	144
Chemistry.....	16	ing.....	3		
Classics.....	16	Civil engineering.	7	Ph. D.:	
Economics.....	13	Dairy bacteriology	1	Animal nutrition.	1
Education.....	27	Dairy husbandry.	3	Bacteriology.....	1
English.....	30	Electrical engi-		Botany.....	8
Entomology.....	4	neering.....	7	Chemistry.....	31
German.....	11	Entomology.....	6	Economics.....	7
History.....	23	Genetics.....	1	Education.....	7
Household science	3	Geology.....	2	English.....	6
Physics.....	6	Horticulture.....	3	Engineering.....	2
Political science..	7	Household science	4	Entomology.....	3
Mathematics.....	8	Mathematics.....	4	Genetics.....	1
Romance lan-		Mechanical engi-		Geology.....	1
guages.....	7	neering.....	4	German.....	2
Sociology.....	5	Municipal and san-		History.....	3
Zoology.....	10	itary engineer-		Horticulture.....	1
Philosophy.....	1	ing.....	1	Mathematics.....	6
Transportation....	2	Railway electrical		Philosophy.....	2
Total.....	193	engineering....	1	Physics.....	6
		Railway mechan-		Political science..	1
M. S.:		ical engineering.	1	Psychology.....	2
Agronomy.....	17	Pathology and		Romance lan-	
Animal husbandry	15	bacteriology...	2	guages.....	1
Architecture.....	2	Physics.....	2	Zoology.....	11
Architectural en-		Theoretical and		Total.....	103
gineering.....	1	applied me-			
Botany.....	2	chanics.....	7		
Bacteriology.....	1				

## Expenses:

Matriculation fee.....	\$10
Tuition, free.	
Diploma fee.....	5
Board .....	160-200
Room .....	72-80
Total annual expense.....	375-500

INDIANA UNIVERSITY, Bloomington, Ind., a city of 11,595 inhabitants. A State institution, founded January 20, 1820.

## Graduate School:

Admission: Bachelor's degree from a standard college.

## Degrees:

M. A.—One year of postgraduate study.

Ph. D.—Three years of postgraduate study; thesis.

## School of Law—Graduate course:

Admission: A. B. degree from a standard college.

Degree: J. D.—Three-year course with superior record.

## School of Education—Graduate courses:

Admission: Bachelor's degree from a recognized college.

## Degrees:

A. M.—One year of postgraduate work.

Ph. D.—Three years of postgraduate study and thesis.

## Noteworthy equipment for particular lines of graduate study:

A. Equipment and research funds: Waterman Institute for Scientific Research; Museum of South American Fresh-water Fishes; summer biological station. The university is affiliated with the Indiana Geological Survey, the Robert Long Hospital at Indianapolis, and the State Legislative Reference Bureau, through which organizations further opportunities for research may be had. The university has special funds for research in physical and biological sciences.

B. Library facilities: 128,383 volumes. Special library in international law. The library is strong in literary and scientific periodicals.

C. Facilities for the publication of research results: University of Indiana Studies; monographs on fresh-water fishes of South America; facilities for historical studies in connection with the Indiana Historical Survey and the Indiana Magazine of History.

Number of A. M. and Ph. D. degrees granted during the three years 1916-1918, listed according to the major subject pursued:

A. M.:		A. M.—Continued.		Ph. D.:	
Anatomy.....	4	Philosophy.....	3	Botany.....	2
Botany.....	4	Physics.....	4	Geology.....	3
English.....	38	Physiology.....	2	Mathematics.....	3
Chemistry.....	10	Political science..	3	Political science..	1
Education.....	16	Romance lan-		Physics.....	1
Economics.....	3	guages.....	1	Sociology.....	2
German.....	4	Social service....	3		
History.....	18	Sociology.....	1	Total..	12
Journalism.....	1	Zoology.....	4		
Latin.....	6				
Mathematics.....	6	Total.....	131		

**Expenses :**

Contingent fee (residents of Indiana), per semester-----	\$9. 00
Contingent fee (nonresidents of Indiana), per semester-----	15. 00
Diploma fee -----	5. 00
Room, per week-----	1. 25-2. 50
Board, per week-----	4. 00-5. 50

**STATE UNIVERSITY OF IOWA**, Iowa City, Iowa, a city of 11,267 inhabitants. Founded, 1847; coeducational.

Admission: Bachelor's degree from a recognized college.

**Degrees:**

M. A. and M. S.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis.

Advanced professional degrees are granted to graduates in engineering who have had four years' professional experience, one of which must have been in a responsible position and another of which may have been spent in graduate work.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds. Child-welfare research station; psychopathic hospital; psychology of music studio; museum of marine forms; laboratories in engineering, physics, biology, and medicine. The university has special appropriations for experiments in hydraulics, biochemistry, nutrition, and child welfare.

B. Library facilities: 170,412 volumes. Special collections in natural history, travel, and Americana.

C. Facilities for the publication of research results: University of Iowa Studies, containing Natural History Bulletin; Studies in Psychology; Studies in Social Sciences; Contributions from the Physical Laboratory; Humanistic Studies; Studies in Education; Studies in Medicine; Aims and Progress of Research.

Number of M. A., M. S., and Ph. D. degrees granted during the three years, 1916-1918, listed according to the major work pursued:

M. A.:		M. S.:		Ph. D.:	
Education.....	15	Ophthalmology...	3	Political science..	5
German.....	3	Industrial chem-		Experi m e n t a l	
English literature.	3	istry.....	1	physics.....	4
Latin.....	3	Physics.....	12	Psychology of re-	
Psychology.....	4	Entomology.....	2	ligion.....	1
English.....	5	Structural design.	1	Sociology.....	1
Economics.....	3	Internal medicine	2	Physical and elec-	
Sociology.....	5	Theoretical mathe-		trochemistry... 1	
Political science..	5	metics.....	1	Economics.....	1
History.....	12	Geology.....	3	Psychology.....	2
Political economy	1	Botany.....	2	Animal biology...	2
Philosophy.....	2	Invertebrate zool-		Education.....	5
French.....	1	ogy.....	1	General geology..	1
English literature		Mathematics....	3	History.....	2
and language... 7		Physiology.....	1	Biochemistry.....	1
Total.....	69	Zoology.....	1	Total.....	26
		Animal biology...	1		
		Embryology.....	1		
		Total.....	35		

## Expenses:

Matriculation fee .....	\$10
Tuition, free.	
Diploma fee .....	10
Board, per week, \$4 and upward.	
Room, per month, \$6 and upward.	

**IOWA STATE COLLEGE, Ames, Iowa, a town of 6,270 inhabitants. Founded, 1858; a "land-grant" institution.**

## Graduate Division:

Admission: Bachelor's degree from a recognized college.

## Degrees:

M. Sc. (in specified subjects).—One year of postgraduate work.

Ph. D.—Three years of postgraduate study; thesis.

The Engineering Division grants the following professional degrees at the completion of one year of postgraduate study and one year's responsible practice, or of five years of responsible practice: A. E., C. E., Ch. E., E. E., M. E., E. M.

The Graduate Division conducts advanced research and gives instruction in the five major lines of work of the college—agriculture, engineering, home economics, industrial sciences, and veterinary medicine.

## Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Engineering, chemical, agricultural, and veterinary laboratories; experiment stations in agriculture and engineering; natural science building. There are special research funds in veterinary science, engineering, and agriculture.

B. Library facilities: 85,000 volumes. Special collections in veterinary science, economic history, and animal husbandry.

Number of M. Sc. and Ph. D. degrees granted during the three years 1916-1918, listed according to the major subject pursued:

M. Sc.:		M. Sc.—Continued.		M. Sc.—Continued.	
Botany.....	11	Dairy husbandry.	8	All others.....	2
Zoology and entomology.....	5	Geology.....	1	Total.....	123
Chemistry.....	10	Agricultural engineering.....	1	Ph. D.:	
Animal husbandry.....	23	Bacteriology.....	8	Botany.....	2
Physics.....	2	Mathematics.....	5	Animal husbandry.....	1
Agronomy.....	23	Farm management.....	3	Agronomy.....	2
Horticulture.....	10	Forestry.....	2	Total.....	5
Economic science.	9				

## Expenses:

Tuition—per quarter (free to residents of Iowa), to nonresidents of Iowa.....	\$17. 00
Incidental fee, per quarter.....	6. 00
Laboratory fees.	
Board and room, per week.....	5. 50
Diploma fee.....	5. 00
Total annual expense need not exceed.....	400. 00



**JOHNS HOPKINS UNIVERSITY**, Baltimore, Md., a city of 733,826 inhabitants, 40 miles from Washington, the capital of the country. Founded, 1867.

**Graduate courses:**

**Under the Faculty of Philosophy:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

A. M.—Two years of postgraduate study; essay.

Ph. D.—Three years of postgraduate study; dissertation.

**Under the Faculty of Medicine:**

Admission: Bachelor's degree from a recognized college, or knowledge equivalent to that implied by such a degree, including work in Latin, French, and German, biology, chemistry, and physics.

Degree: M. D.—Four years of postgraduate work.

**Under the Department of Engineering:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

Master of C. E., Master of E. E., Master of M. E.—Two years of postgraduate study.

Ph. D.—Three years of postgraduate study; dissertation.

**Under the Faculty of Hygiene:**

Admission: Bachelor's degree from a recognized college; degree of M. D. also required of candidates for D. P. H.

**Degrees:**

D. P. H.—Two years' work following M. D.; essay.

D. Sc. in Hygiene—Three years of work subsequent to bachelor's degree; dissertation.

From its foundation Johns Hopkins University has been primarily devoted to graduate study and is the pioneer in that field in this country. The university is one of the very few in the United States requiring two years instead of one for the master's degree.

**Noteworthy facilities for particular lines of graduate study:**

- A. Equipment and research funds: Well-equipped laboratories in anatomy; hygiene and public health; electrical, mechanical, and civil engineering. Candidate for the degree of Ph. D. may utilize the resources of the Medical School and the School of Hygiene and the Embryological Institute of the Carnegie Institution of Washington, D. C., with which the university is affiliated. There are special funds for investigations in geology and physiology.

Close connection between the university and the Johns Hopkins Hospital and Dispensary offers excellent clinical facilities and makes possible the emphasis placed upon laboratory and hospital training.

Special and mutual advantages arise from the close relationship between the School of Hygiene and Public Health and the International Health Board of the Rockefeller Foundation, particularly in field work and in the opportunities for investigation and training in tropical medicine and the control of special diseases.

- B. Library facilities: 212,661 volumes. The chief collections are in philosophy; psychology; education; history; political economy; political science; classics, art, and archaeology; Sanskrit; Semitics; English; German; Romance languages; mathematics; physics; astronomy; chemistry; geology; civil engineering; biology; medical sciences; hygiene; electrical and mechanical engineering. Students also have

Noteworthy facilities for particular lines of graduate study—Continued.

the use of other large libraries in Baltimore, including the Peabody Library, 237,693 volumes and pamphlets, and the Enoch Pratt Free Library, 366,116 volumes. The Library of Congress and other large libraries located in Washington, D. C., may also be easily visited.

- C. Facilities for the publication of research results: Johns Hopkins University Press, which publishes: *American Journal of Insanity*; *American Journal of Mathematics*; *American Journal of Philology*; *Beiträge zur Assyriologie und semitischen Sprachwissenschaft*; *Hesperia* (*Schriften zur Germanischen Philologie*); Elliott monographs in the Romance languages and literatures; Johns Hopkins Hospital Reports; Johns Hopkins University Studies in (a) Education, (b) Historical and Political Series; *Modern Language Notes*; Reprint of Economics Tracts; Reports of the Maryland Geological Survey; *Terrestrial Magnetism and Atmospheric Electricity*.

Number of M. A. and Ph. D. degrees granted during the three years 1916–1918, listed according to the major subject pursued:

M. A.:		M. A.—Continued.		Ph. D.—Continued.	
English.....	5	Spanish.....	1	Plant physiology..	7
Physics.....	6			Political science..	4
Political economy..	1	Total.....	39	Economics.....	8
Latin.....	2			Mathematics.....	6
Philosophy.....	1	Ph. D.:		Geology.....	5
French.....	5	Assyrian.....	1	Latin.....	2
German literature..	2	Chemistry.....	21	German.....	1
Bacteriology.....	1	Sanskrit.....	1	Hebrew.....	3
Political science..	4	Electrical engi-		Italian.....	2
Pathology.....	1	neering.....	1	Physiology.....	1
History.....	4	French.....	4	German philology..	2
Zoology.....	1	Physics.....	6	German literature..	2
Education.....	3	Zoology.....	3	Total.....	94
Geology.....	1	Education.....	2		
Mechanical engi-		History.....	3		
neering.....	1	English.....	4		
		Psychology.....	3		

#### Expenses:

Tuition .....	\$150
Tuition in Medical School and the School of Hygiene.....	250
Diploma fee, Ph. D.....	\$10
Diploma fee, M. A.....	10
Board, per week, \$5 and upward.	
Room, per week, \$2 and upward.	

The university provides five scholarships, yielding free tuition, for students from Latin-American countries who wish to pursue graduate courses, and five for students (graduate or undergraduate) from France.

**UNIVERSITY OF KANSAS, Lawrence, Kans., a city of 12,456 inhabitants; a State institution. Date of first opening, 1866; coeducational.**

Admission: Bachelor's degree from a recognized college.

Degrees:

A. M. and M. S.—One year of postgraduate study; thesis.

<sup>11</sup> If M. A. precedes the Ph. D., \$5 only will be charged.

## Degrees—Continued.

Ph. D.—Three years of postgraduate study; thesis.

C. E., Mech. E., Chem. E., E. M., Elec. E., conferred on graduates in engineering, after three years of professional engineering service in positions of responsibility, and the presentation of a thesis.

## Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Entomological and biological collections; museum of natural history and paleontology; chemical and engineering laboratories. Special funds for research in industrial chemistry and engineering. Biological, geological, and chemical surveys are supported by State appropriations.

B. Library facilities: 125,212 volumes. The library is primarily a working library for undergraduates, but investigators also have ample opportunities for carrying on original work. Good collection of books in history and chemistry.

C. Facilities for the publication of research results: University of Kansas Humanistic Studies; the University Geological Survey Bulletins; the University Entomological Bulletins; the Bulletin on the Engineering Experiment Station; University of Kansas Science Bulletin.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

A. M.:		A. M.—Continued.		M. S.:	
Latin.....	7	Home economics..	2	Anatomy.....	4
Bacteriology.....	3	Journalism.....	2	Bacteriology.....	1
Botany.....	6	Mathematics.....	9	Chemistry.....	6
Chemistry.....	14	Physics.....	3	Education.....	1
Economics.....	3	Physiology.....	1	Electrical en-	
Education.....	13	Romance lan-		gineering.....	2
English.....	32	guages.....	3	Total.....	14
Entomology.....	6	Sociology.....	11		
Fine arts.....	1	Zoology.....	12	Ph. D.:	
Geology.....	2			Sociology.....	1
German.....	12	Total.....	156		
History.....	14				

## Expenses:

Matriculation fee (residents of Kansas)-----	\$5
Matriculation fee (nonresidents of Kansas)-----	10
Incidental fee (residents of Kansas)-----	10
Incidental fee (nonresidents of Kansas)-----	20
Diploma fee-----	5
Board, per week-----	7
Room, per month-----	4-15

LELAND STANFORD JUNIOR UNIVERSITY, Stanford University, Calif., 30 miles southeast of San Francisco, a city of 508,410 inhabitants. Founded, 1885; coeducational.

Admission: Bachelor's degree from a recognized college.

## Degrees:

A. M.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis.

Engineer (Civil, Mechanical, Electrical, Chemical, Mining).—One year of postgraduate work in the department of applied science; thesis.

Noteworthy facilities for particular lines of graduate study:

- A. Equipment and research funds: Laboratories for research in aerodynamics and mechanical engineering, entomology, geology, paleontology, and metallurgy and mining. The university also has an endowment for psychological research and a fund for flour investigations.
- B. Library facilities: 295,000 volumes. Special collections in ichthyology, ornithology, transportation, German language and literature, certain fields of 16th and 17th Century European literature, Australian history, the French Revolution, British and American Government documents, English and American law, medicine, geology, mineralogy, geography, and mining and metallurgy.
- C. Facilities for the publication of research results: Leland Stanford Junior Publications.

Number of A. M. and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

A. M.:		A. M.—Continued.		Ph. D.:	
Botany.....	6	Philosophy.....	1	Botany.....	1
Chemistry.....	5	Physics.....	1	Chemistry.....	3
Economics.....	8	Romance lan-		Geology.....	1
E d u c a t i o n		guages.....	10	Latin.....	2
(graphic art)....	1	Zoology.....	5	Physics.....	2
Education.....	23	Entomology.....	7	Education.....	1
English.....	31	Geology.....	3	Economics.....	2
Germanic lan-		German.....	11	Total.....	12
guages.....	2	Pathology.....	1		
History.....	13	Greek.....	2		
Latin.....	11				
Mathematics.....	7	Total.....	148		

#### Expenses:

Tuition free.	
Incidental fee, per quarter.....	\$3
Degree fee.....	5
Board and room, at university, per month.....	32-37
Board and room, outside of university, per month.....	30-40
Total annual expense.....	500-600

UNIVERSITY OF MICHIGAN, Ann Arbor, Mich., a city of 19,516 inhabitants. Founded, 1837; coeducational.

Admission: Bachelor's degree from a recognized college.

#### Degrees:

- A. M. and M. S.—One year of postgraduate work.
- M. S. in Forestry.—One year of postgraduate work after B. S. in Forestry.
- M. L. D.—One year of postgraduate work after A. B.
- M. S. in Engineering.—One year of postgraduate work after B. S.
- M. S. in Architecture.—One year of postgraduate work after B. S. in Architecture.
- M. S. in Public Health.—One year of postgraduate work after M. D. To obtain this degree a student must also have an A. B. or B. S.
- C. E., M. E., E. E., Ch. E., Nav. Arch., Mar. E., Arch. (At least five years must have elapsed after the bachelor's degree before registration for engineering degree. At least one year must have been spent in

## Degrees—Continued.

responsible charge of some professional work.)—One year of advanced study; thesis.

Ph. D. or Sc. D.—Three years of postgraduate work; thesis.

D. P. H.—Two years after M. D.; thesis.

## Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Specially equipped laboratories in botany, zoology, chemistry, forestry, psychology, geology, physics, anatomy, medical subjects, aeronautics and all branches of engineering. The university possesses a well-equipped astronomical observatory, a museum of zoology, a University General Hospital, and a Psychopathic Hospital.

B. Library facilities: 400,830 volumes. Special collections: American history, Elizabethan literature, English drama, Carlyle literature, Goethe literature, political economy (earlier period, especially of Germany), and the Philippine Islands.

C. Facilities for the publication of research results: University of Michigan Humanistic Series.

Number of A. M., M. S., and Ph. D. degrees granted during the three years 1916–1918, listed according to the major work pursued:

A. M.:		M. S.:		Ph. D.:	
Actuarial science.	4	Actuarial science.	1	Anatomy.....	2
Anatomy.....	2	Anatomy.....	2	Astronomy.....	2
Bacteriology.....	1	Bacteriology.....	6	Bacteriology.....	1
Botany.....	13	Botany.....	7	Botany.....	5
Chemistry.....	2	Chemistry.....	17	Chemical engi-	
Economics.....	24	Chemical engi-		neering.....	1
Education.....	20	neering.....	4	Chemistry.....	13
English.....	38	Electrical engi-		Civil engineering.	1
Fine arts.....	2	neering.....	1	Economics.....	3
French.....	3	Geology.....	2	Education.....	1
German.....	17	Marine engineer-		Engineering me-	
Greek.....	3	ing.....	2	chanics.....	1
Histology.....	1	Mathematics.....	1	English.....	1
History.....	23	Mineralogy.....	1	Fine arts.....	1
Latin.....	22	Naval architec-		German.....	4
Mathematics.....	12	ture.....	1	Greek.....	2
Music.....	3	Pathology.....	1	History.....	4
Oratory.....	13	Pharmacology....	1	Latin.....	1
Pathology.....	2	Pharmacy.....	5	Mathematics.....	4
Pharmacy.....	1	Physics.....	12	Physics.....	5
Philosophy.....	7	Physiological		Physiological	
Physics.....	7	chemistry.....	1	chemistry.....	1
Political science..	3	Psychology.....	1	Political science..	1
Psychology.....	3	Zoology.....	3	Rhetoric.....	7
Rhetoric.....	16	Engineering.....	47	Romance lan-	
Romance lan-		Architecture.....	3	guages.....	1
guages.....	2	Landscape design.	2	Zoology.....	4
Semitics.....	2	Municipal admin-			
Sociology.....	7	istration.....	2	Total.....	66
Spanish.....	1	Forestry.....	19		
Zoology.....	8	Public health....	5		
Total.....	262	Total.....	147		

**Expenses:**

Matriculation fee, residents of Michigan-----	\$10
Matriculation fee, nonresidents of Michigan-----	25
Annual fee, residents of Michigan, for women, \$45; for men-----	49
Annual fee, nonresidents of Michigan, for women, \$65; for men----	69
Diploma fee, residents of Michigan-----	10
Diploma fee, nonresidents of Michigan-----	25
Board, about \$6 a week.	
Room, \$2 to \$3 a week.	
Total annual expenses, estimated-----	660-700

**UNIVERSITY OF MINNESOTA**, Minneapolis, Minn., a city of 386,582 inhabitants. Founded, 1851; a "land-grant" institution; coeducational.

**Graduate School:**

**Admission:** Bachelor's degree from a recognized college.

**Degrees:**

M. A., and M. S.—One year of postgraduate study; thesis.

Ph. D.—At least three years of postgraduate study; thesis.

**College of Engineering and Architecture:**

Professional degrees: C. E., M. E., E. E., Architect.—Five year courses; thesis. At end of fourth year B. S. in Engineering, or B. S. in Architecture may be awarded.

**School of Chemistry:**

Professional degree: Chem. E.—Five-year course in applied chemistry. At end of fourth year B. S. may be awarded.

**College of Pharmacy—Graduate courses:****Degrees:**

M. S. in Phm.—Five year course.

D. Sc. in Phm.—Six-year course. At end of fourth year B. S. in Phm. awarded.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and researchs funds: City and University Hospitals; Institute of Anatomy; Mayo Foundation for Medical Education and Research; laboratories in zoology, medicine, and engineering; extensive experiment farms and plots; U. S. Bureau of Mines. The income from an endowment of nearly \$2,000,000 for the Mayo Foundation for Medical Education and Research is devoted entirely to the support of graduate work in medicine.

B. Library facilities: 289,110 volumes. Special collections in the history of 17th Century England, and adequate facilities along a large number of other lines.

C. Facilities for publication of research results: Research publications of the University of Minnesota; School of Mines Experiment Station Bulletins; Bulletins of the Minnesota Geological Survey; Agricultural Experiment Station Bulletins; Minnesota Botanical Studies.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:		M. S.:		Ph. D.:	
Economics.....	10	Agricultural chem-		Inorganic chem-	
Romance lan-		istry.....	6	istry.....	1
guages.....	8	Soils.....	5	Anatomy.....	2
English.....	16	Agronomy.....	3	Physics.....	2
History.....	15	Chemistry.....	12	Organic chemis-	
Rhetoric.....	1	Geology.....	1	try.....	2
Political science..	4	Plant pathology..	3	History.....	1
Latin.....	4	Agricultural edu-		Botany.....	2
Comparative phi-		cation.....	1	Anthropology....	1
lology.....	2	Entomology.....	1	Education.....	1
German.....	6	Pediatrics.....	1	Botany.....	3
Anatomy.....	5	Physiology.....	1	English.....	2
Animal biology...	3	Mathematics....	1	Economic geology	1
French.....	2	Farm manage-		Horticulture.....	1
Sociology.....	4	ment.....	3	Surgery.....	1
Education.....	10	Economic geolo-		Plant pathology..	1
Botany.....	2	gy.....	1	Psychology.....	1
Physiology.....	1	Botany.....	4	Romance (Span-	
Mathematics....	3	Medicine.....	1	ish).....	1
Psychology.....	3	Petrology.....	1	Biochemistry....	1
Romance (French)	3	Pathology.....	2	Soils.....	2
Romance (Span-		Electrical engi-		Chemistry.....	2
ish).....	1	neering.....	1	Physical chemis-	
Romance.....	1	Farm crops.....	1	try.....	1
Physics.....	2	Surgery.....	6	Geology.....	1
Astronomy.....	1	Dairy and animal		Total.....	30
Social and civic		husbandry.....	1		
work.....	1	Horticulture.....	1		
Scandinavian....	2	Agricultural eco-			
American history.	1	nomics.....	1		
Bacteriology.....	1	Total.....	58		
Total.....	112				

## Expenses:

Tuition free.

Incidental fee—

Graduate School .....	\$30.00
College of Engineering.....	00.00
School of Mines and Chemistry.....	55.00
College of Pharmacy.....	55.00
Board, per week .....	4.50-6.00
Room, per month.....	6.00-20.00
Total annual expense.....	\$50.00-950.00

UNIVERSITY OF MISSOURI, Columbia, Mo., a city of 10,392 inhabitants. Founded, 1839:  
a "land-grant" institution; coeducational.

## Graduate School:

Admission: Bachelor's degree from a recognized college.

Degrees:

A. M.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis.

The faculty of the Graduate School has charge of all graduate work in the university and offers graduate instruction in the groups of classical

## Graduate School—Continued.

languages, modern languages, philosophy and experimental psychology, education, history and political science, mathematical and physical sciences, biological sciences, art, home economics, agriculture, and engineering.

## School of Engineering—Graduate courses:

Professional degrees of C. E., E. E., M. E., Ch. E., A. E.—Five-year courses.

B. S. in Engineering awarded at end of four years.

## School of Mines and Metallurgy (at Rolla)—Graduate courses:

Admission: Bachelor's degree in the subject to be pursued.

Degrees: E. M., Met. E.—Two years of postgraduate study; thesis.

## Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Experiment stations for agriculture and engineering; the School of Social Economy for training social workers; laboratories in agriculture and zoology.

B. Library facilities: 168,400 volumes. Special collection of U. S. public documents. The library of the State Historical Society is open for the use of students.

C. Facilities for the publication of research results: The University of Missouri Studies; University of Missouri Bulletin; publications of the Agricultural Experiment Station and of the Engineering Experiment Station.

Number of A. M. and Ph. D. degrees granted during the three years 1916-1918, listed according to the major subject pursued:

A. M.:	A. M.—Continued.	Ph. D.:
Agricultural chemistry..... 3	History..... 8	Botany..... 1
Animal husbandry..... 9	History of art.... 1	Education..... 2
Anatomy..... 2	Home economics.. 4	History..... 1
Astronomy..... 1	Horticulture..... 9	History of art.... 1
Botany..... 4	Latin..... 2	Horticulture..... 2
Chemistry..... 6	Mathematics..... 5	Agricultural chemistry..... 2
Dairy husbandry. 13	Manual arts..... 1	Educational 'psychology..... 1
Economics..... 1	Philosophy..... 1	Entomology..... 1
Education..... 16	Physics..... 2	Horticulture..... 1
English..... 12	Physiology..... 6	Latin..... 1
Entomology..... 3	Political science.. 2	Physiology..... 1
Farm crops..... 6	Romance languages..... 2	Sociology..... 1
Farm management 3	Sociology..... 8	
Geology..... 5	Soils..... 3	
Greek..... 1	Veterinary science 1	
German..... 2	Zoology..... 5	
	Total..... 147	Total..... 15

## Expenses:

Incidental fee.....	\$30
Diploma fee.....	2
Board, at university, per week.....	4-6
Room, university dormitory, per year.....	20-35
Board and room, outside university, per week.....	5-6
Total annual expense.....	360



**UNIVERSITY OF NEBRASKA**, Lincoln, Neb., a city of 54,934 inhabitants. Founded, 1869; a "land-grant" institution.

**Graduate College:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

A. M., M. S.—One year of postgraduate study; thesis.

Ph. D.—Three years' of postgraduate study; thesis.

Graduate Teacher's Diploma is granted for advanced work in education.

M. S. in Agricultural, Civil, Electrical, or Mechanical Engineering.—

One year of postgraduate study; thesis.

Agr., E., C. E., E. E., M. E.—One year of postgraduate study and thesis for graduates of the university of at least five years' standing who hold a bachelor's degree and have been engaged in professional work.

**Teachers' College.—Graduate Course:**

University Teachers' Certificate.—Three years' work in Teachers' College.

A bachelor's degree from the university is a prerequisite, and the student must show exceptional scholastic ability and fitness for teaching.

**College of Law.—Graduate Course:**

Degree: J. D.—Holders of baccalaureate degrees from colleges and universities of recognized standing and LL. B. from this university of from one to five years' standing, having spent at least one year in legal professional pursuits; thesis.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds: Laboratories in chemistry, physics, botany, and bacteriology; special facilities for study of the geology and paleontology of the Plains Region of the United States. Special funds exist for medical research.

B. Library facilities: 148,000 volumes. Special library and source material on the French Revolution.

C. Facilities for the publication of research results: The University of Nebraska Studies; Studies from the Zoological Laboratory; Reports of the Botanical Survey of Nebraska; the Flora of Nebraska; the Nebraska Geological Survey.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:		M. A.—Continued.		M. A.—Continued.	
Educational theory and practice.	2	Philosophy.....	5	American history.	10
Education.....	11	Farm management	4	English history...	1
Germanics.....	6	Sociology.....	5	Rhetoric.....	1
Agricultural chemistry	2	Botany.....	7	Roman history	
Chemistry.....	14	Bacteriology.....	2	and literature..	1
History.....	8	Zoology.....	3	Germanic language and literature	
Political science and sociology...	4	European history.	2	ature.....	1
Geography.....	1	Pharmacology.....	1	English literature.	2
English language and literature..	3	Geography.....	2	Economics.....	2
		Political science..	2	Physics.....	1
		English language and literature..	10	English and American history....	1
		Animal husbandry	1		

M. A.—Continued.		M. S.:	Ph. D.:		
Greek.....	2	Chemistry.....	1	Chemistry.....	2
Geology.....	1	Agricultural chem-		Philosophy.....	1
Philosophy.....	5	istry.....	2	Education.....	2
Jurisprudence and		Civil engineering..	1	Zoology.....	1
public law.....	1	Plant pathology..	1	Plant pathology..	1
				Greek.....	1
Total.....	114	Total.....	5	Total.....	8

**Expenses:**

Matriculation.....	\$5
Tuition, free.	
Diploma fee .....	10
Board, per week.....	5-7
Room, per month.....	5-10
Minimum annual expense .....	300

**NEW YORK UNIVERSITY, New York, N. Y., a city of 5,621,151 inhabitants. Founded, 1831.**

**Graduate School:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

M. A. and M. S.—Not less than one year of postgraduate study; thesis.

Ph. D. and Sc. D.—Not less than three years of postgraduate study; thesis.

**School of Applied Science—Graduate courses:**

Admission: B. S. (in specified branches of engineering).

Degrees: C. E., M. E., Chem. E.—One year of postgraduate study; thesis.

**School of Law—Graduate courses:**

Admission: to J. D.—Bachelor's degree from a recognized college.

to LL. M.—LL. B. degree.

to J. S. D.—Bachelor's degree from a recognized college and LL. B.

**Degrees:**

J. D.—Three-year course.

LL. M.—One year of postgraduate study after LL. B.

J. S. D.—One year of postgraduate study after LL. B.

**University and Bellevue Hospital Medical College—Graduate courses:**

Admission: M. D. degree.

Degree: D. P. H.—One year's work in public health and sanitation after M. D.

**School of Commerce, Accounts, and Finance—Graduate course:**

Admission: to M. C. S.—B. C. S. degree.

to M. B. A.—Bachelor's degree from a recognized college.

**Degrees:**

M. C. S.—One year of postgraduate work after B. C. S.; thesis.

M. B. A.—For those holding bachelor's degree from recognized college, two years of postgraduate study.

**School of Pedagogy:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

Pd. M.—Not less than one year of postgraduate study plus two years' teaching experience.

Pd. D.—Not less than two years' postgraduate study plus three years' teaching experience; thesis.

**Noteworthy facilities for particular lines of graduate study:**

**A. Equipment and research funds:** Havemeyer Chemical Laboratory. The university cooperates with the Brooklyn Botanic Garden for botanical research and with the Department of Public Health of New York City for research in public hygiene and bacteriology. There is also opportunity for research in the biological sciences in connection with the University and Bellevue Hospital Medical School.

**B. Library facilities:** 83,000 volumes. Special collections in Germanic literature, Semitic languages, the classics, and the Romance languages and literatures. A number of other large libraries located in New York, including the New York Public Library (1,065,196 volumes) and the Columbia University Library, are available for the use of students.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:	M. A.—Continued.	Ph. D.:
Latin..... 10	Psychology..... 7	Latin..... 3
Greek..... 2	Education..... 18	Semitics..... 2
Semitics..... 3	Total..... 121	English..... 7
English..... 13		History..... 3
French..... 4	<b>M. S.:</b>	Economics..... 1
German..... 11	Chemistry..... 10	Sociology..... 2
History..... 18	Physics..... 1	Philosophy..... 2
Economics..... 8	Geology..... 14	Education..... 15
Government..... 2	Bacteriology..... 3	Chemistry..... 1
Sociology..... 24	Total..... 28	Total..... 36
Philosophy..... 1		

**Expenses:****Tuition—****Graduate School (based on amount of work taken)—**

For each 1-hour course.....	\$12
For each 2-hour course.....	24
Law School, LL. M., J. D., and J. S. D. courses.....	154
School of Commerce, Accounts, and Finance (based on amount of work taken).....	17-202
<b>School of Pedagogy (based on amount of work taken)—</b>	
For each 1-hour course.....	12
For each 2-hour course.....	24

**Examination fee—**

Graduate School.....	20
University and Bellevue Hospital Medical College.....	25
School of Commerce, Accounts, and Finance.....	20
School of Pedagogy.....	20
School of Law.....	20

<b>Board</b> .....	210-350
<b>Room</b> .....	100-300
<b>Total annual expense</b> .....	600-900

**NORTHWESTERN UNIVERSITY**, Evanston and Chicago, Ill. The Graduate School is located at Evanston, a city of 37,215 inhabitants, 12 miles north of the center of Chicago, and continuous with it. Founded, 1851.

Admission: Bachelor's degree from a recognized college.

Degrees:

M. A., M. S.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis.

M. S. T.—Three years in theological school; one year of postgraduate work; thesis.

Law School—Graduate course:

Degree: LL. M.—One year of postgraduate study after LL. B.; thesis.

Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Research laboratory in bacteriology; theoretical engineering facilities. The university possesses a foundation for research in medicine.

B. Library facilities: 112,000 volumes. Special collections in Greek and Latin classics, foreign legal reports (in the Gary Library of Law), and Hispanic-American history and institutions. Other large libraries, located in Chicago, including the Newberry Library, 370,831 volumes; John Crerar libraries, 380,670 volumes; and the Chicago Public Library, 806,172 volumes, are easily accessible to graduate students.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:		M. A.—Continued.		Ph. D.:	
Economics.....	3	Political science..	2	Physics.....	1
Astronomy.....	2	Zoology.....	3	Zoology.....	2
Education.....	8	Biblical literature	2	Bacteriology.....	1
Law.....	4	Philosophy.....	1	German.....	2
Classical languages	5	Botany.....	4	History.....	1
English.....	9	Geology.....	1	Medicine.....	1
History.....	8	Physiology.....	1		
German.....	8			Total.....	8
Old Testament....	12	Total.....	81		
Romance lan-					
guages.....	1	M. S.:			
Chemistry.....	2	Chemistry.....	6		
Psychology.....	3	Geology.....	1		
Mathematics.....	2	Total.....	7		

Expenses:

Matriculation .....	\$5
Tuition (based on courses taken), not to exceed.....	50
Diploma fee.....	10
Board, per week.....	6-8
Room, per month.....	10-15
Total annual expense.....	425-750

**OHIO STATE UNIVERSITY**, Columbus, Ohio, a city of 237,031 inhabitants. A "land-grant" institution, founded, 1870; coeducational.

Graduate School:

Admission: Bachelor's degree from a recognized college.

Degrees:

A. M. and M. Sc.—One year of postgraduate study.

Ph. D.—Three years of postgraduate study; thesis (dissertation).

## Graduate School—Continued.

## Degrees—Continued.

Arch. E., M. E., E. E., Cr. E., Ch. E., M. Arch.—

- (1) Four years of professional experience and thesis, or
- (2) M. Sc. in Engineering, followed by two years' experience and thesis, or
- (3) One year of experience, one year at university in engineering, and thesis.

## College of Law—Graduate course:

Degree: J. D.—Three-year course, for those having bachelor's degree from a recognized college and 50 hours' merit in the College of Law.

## Noteworthy facilities for particular lines of graduate study:

- A. Equipment and research funds: Lake Laboratory for research in biological sciences; the geological museum, containing an excellent collection of specimens illustrative of the geology of Ohio. There are special funds for research in agriculture.
- B. Library facilities: 198,295 volumes. Special collections in animal husbandry, the American Civil War, German history, and economics. Other large libraries, including the Ohio State Library, 235,218 volumes, are located in Columbus.
- C. Facilities for the publication of research results: Ohio State University Studies.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:		M. A.—Continued.		M. Sc.—Continued.	
Anatomy.....	3	School adminis-		Rural economics..	4
Bacteriology.....	1	tration.....	16	Soils.....	2
Botany.....	4	Sociology.....	6	Zoology.....	7
Chemistry.....	21	Zoology.....	5	Total.....	78
Economics.....	7	Total.....	166		
English.....	27			M. Sc. in Public	
Entomology.....	1	M. Sc.:		Health.....	3
French.....	11	Agronomy.....	5		
Geology.....	3	Animal husbandry	3	Ph. D.:	
German.....	4	Bacteriology.....	4	Botany.....	1
History.....	8	Botany.....	7	Chemistry.....	13
History of educa-		Chemistry.....	24	English.....	1
tion.....	6	Civil engineering.	1	Entomology.....	1
Home economics..	1	Economics.....	1	German.....	2
Latin.....	12	Electrical engi-		Philosophy.....	2
Mathematics.....	8	neering.....	6	Psychology.....	1
Mineralogy.....	1	Entomology.....	6	Sociology.....	1
Philosophy.....	1	Farm crops.....	4	Zoology.....	1
Physics.....	3	Home economics..	2	Total.....	23
Political science..	5	Physics.....	1		
Psychology.....	12	Public health....	1		

## Expenses:

Incidental fee .....	\$30. 00
Diploma fee.....	10. 00
Board, per week.....	4. 50
Room, per month.....	8. 00
Total annual expense.....	400-450

**UNIVERSITY OF PENNSYLVANIA, Philadelphia, Pa., a city of 1,823,158 inhabitants. Founded, 1740.**

**Graduate School:**

**Admission:** Bachelor's degree from a recognized college in the United States, or the equivalent for foreign institutions.

**Degrees:**

**A. M. and M. S.**—One year of postgraduate study.

**Ph. D.**—Three years of postgraduate study; thesis.

**Towne Scientific School—Graduate courses in architecture:**

**Admission:** B. S. in Architecture.

**Degree:** M. S. in Architecture—One year's postgraduate study after B. S. in Architecture.

**Law School—Graduate course:**

**Admission:** LL. B. degree.

**Degree:** LL. M.—One year after LL. B.; thesis.

**School of Medicine—Graduate course:**

**Admission:** Graduation from a recognized medical school.

**Degree:** Dr. P. H.—One year's work in public hygiene, following graduation from a recognized medical school.

**Noteworthy facilities for particular lines of graduate study:**

**A. Equipment and research funds:** Laboratories in the fields of natural science; Wistar Institute of Anatomy and Biology; Evans Dental Institute; illustrative material for ethnology and archaeology in the University Museum; the Henry Phipps Institute for the study and treatment of tuberculosis. Funds of the Harrison Foundation are available for the promotion of research. Students may also avail themselves of the facilities possessed by the museum of the Academy of Natural Sciences, the White Williams Foundation for Social Research, the zoological garden, and the Commercial Museum. The University Graduate Medical School offers extensive opportunities for study and research along medical lines.

**B. Library facilities:** 451,025 volumes. Special collections in philosophy and ethics, modern spiritualism, law, finance, and political economy, philology, the classics, English literature, American drama, Germanic philology and literature, Dante, Petrarch, and Tasso, Hebrew and Rabbinical literature, Arabic and Syriac literature, Assyriology, Mexican and Central American archaeology, Welsh literature and philology, Russian literature and history, biology, geology, mathematics, civil engineering, medicine, surgery, dermatology, veterinary medicine, American history and institutions, ethnology. Other large libraries located in Philadelphia are the Philadelphia Free Library, 551,586 volumes; the library of the American Philosophical Society, 63,000 volumes; Mercantile Library, 211,000 volumes; library of the Pennsylvania Historical Society, 202,000 volumes; library of the College of Physicians and Surgeons; Wistar Institute Library; and the library of the Academy of Sciences.

**C. Facilities for the publication of research results:** Series in philology and literature, philosophy, political economy and public law, astronomy and history; contributions from the botanical laboratory, zoological laboratory, department of mathematics, and the laboratory of hygiene; publications of the Wistar Institute. Publications affiliated with the university; Annals of the American Academy of Political and Social Science; Proceedings of the University Museum; contributions from Laboratory of Clinical Medicine; contributions from the Laboratory of Neuropathology; and the Psychological Clinic.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:	M. A.—Continued.	Ph. D.:
Anthropology..... 3	Romanics..... 2	Greek..... 1
Economics..... 27	Research medi-	Botany..... 4
Education..... 23	cines..... 1	Chemistry..... 3
Psychology..... 16	Geology..... 1	Economics..... 11
Romanics..... 4	Physics..... 2	Education..... 2
Bacteriology..... 3	Transportation ... 1	English..... 11
Botany..... 4	Geography and	Germanics..... 10
Chemistry..... 1	industry..... 2	History..... 8
English..... 26	Total..... 215	Latin..... 5
Greek..... 1		Mathematics.... 4
History..... 22		Medical science .. 5
Latin..... 10	M. S.:	Physics..... 1
Mathematics.... 4	Psychology..... 1	Political science.. 7
Medical science .. 3	Bacteriology..... 1	Psychology..... 8
Philos phy..... 2	Botany..... 4	Philosophy..... 1
Semitics..... 2	Zoology..... 2	Romanics..... 1
Sociology..... 45	Chemistry..... 1	Semitics..... 2
Germanics..... 3	Architecture..... 1	Zoology..... 6
History of re-	Physiological	Sociology..... 5
ligions..... 2	chemistry..... 1	Total..... 95
Political science.. 4	Total..... 11	
Zoology..... 1		

#### Expenses:

Matriculation.....	\$5
Tuition—	
Graduate School (based on amount of work taken) not to exceed .....	150
Architecture.....	200
Law .....	200
Medicine .....	200
Diploma fee.....	25
Board and room.....	200-350
Total annual expense.....	450-635

**PRINCETON UNIVERSITY, Princeton, N. J., a city of 5,917 inhabitants. Founded, 1746.**

#### Graduate School:

Admission: Bachelor's degree from a recognized college.

#### Degrees:

A. M.—At least one year of exclusively resident graduate study.

Ph. D.—A minimum of two years of graduate study. Requirements for the degree can rarely be completed in less than three years; thesis.

Graduate courses are offered in the following subjects: Philosophy, psychology, history and politics, economics and social institutions, art and archæology, linguistics, Greek, Latin, English, modern languages, mathematics, astronomy, physics, chemistry, geology, biology; also courses in Semitics and Greek in Princeton Theological Seminary.

The Graduate College is one of the best-equipped groups of university buildings exclusively for graduate students to be found in the country. A liberal

endowment and fellowship fund make it possible for Princeton to offer to able students exceptional opportunities for graduate work in arts and sciences.

#### School of Electrical Engineering:

Admission: First degree from an accredited college, or equivalent work in mathematics, physics, and chemistry.

Degree: E. E.—Two years of postgraduate study.

#### Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Advanced instruction and research in the liberal arts and sciences, exclusive of professional or technical studies.

B. Library facilities: 397,126 volumes. Special collections relating to the classics, the American Civil War, the recent World War, oriental philosophy and history, cuneiform documents, and statistics.

C. Facilities for the publication of research results: Princeton University Press.

Number of M. A. and Ph. D. degrees granted during the three years 1916–1918, listed according to the major work pursued:

M. A.:		M. A.—Continued.		Ph. D.—Continued.	
English.....	18	Classics.....	6	Classics.....	4
Mathematics.....	6	History.....	3	English.....	4
Physics.....	3	Institutions and		Biology.....	3
History and poli-		politics.....	2	Physics.....	6
tics.....	39	Economics.....	5	Art and archæ-	
Philosophy.....	19	Astronomy.....	1	ology.....	2
Modern languages.	7	Politics.....	1	Psychology.....	1
Biology.....	5	Psychology.....	1	Geology.....	4
Art and archæ-				Philosophy.....	2
ology.....	5	Total.....	139	Chemistry.....	6
Chemistry.....	10			History.....	1
Geology.....	3	Ph. D.:		Total.....	37
Economics and so-		Mathematics.....	1		
cial institutions.	5	Economics.....	3		

#### Expenses:

Matriculation fee.....	\$5
Tuition, full-time students, per year.....	100
Tuition, part-time students, per year.....	40
Diploma fee.....	5
Board, per week.....	7
Room (including light and heat).....	52–256
Total annual expense.....	420–600

UNIVERSITY OF TEXAS, Austin, Tex., a city of 34,876 inhabitants. Founded, 1883; coeducational.

#### Graduate School:

Admission: Bachelor's degree from a recognized college.

#### Degrees:

A. M.—One year of postgraduate study; thesis.

M. B. A.—One year of postgraduate study; thesis; successful business experience.

M. J.—One year of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis.



**College of Engineering—Graduate courses:**

Admission: Bachelor's degree in the subject to be pursued.

Degrees: M. S. in Architecture, M. S. in Architectural Engineering, C. E., E. E.—One year of postgraduate study and research.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds: Laboratories in chemistry and zoology.

B. Library facilities: 135,308 volumes. Special collections of books in Southern history, Texas history, Mexican history, 16th, 17th, and 18th century authors, chemistry and zoology.

C. Facilities for the publication of research results: University of Texas bulletins, including the Humanistic Series; bulletins of the Bureau of Municipal Research and Reference; and bulletins of the Bureau of Economic Geology and Technology.

Number of M. A. and Ph. D. degrees granted during the three years 1916-1918, listed according to major work pursued:

M. A.:		M. A.—Continued.		Ph. D.:	
English.....	14	Zoology.....	5	German philology.	1
Chemistry.....	10	Geology.....	1	Mathematical	
History.....	12	German.....	3	analysis.....	1
Education.....	10	Physics.....	1	Plant pathology...	1
Spanish.....	3	Government and		Total.....	3
General literature.	3	economics.....	1		
Government.....	4	Mathematics.....	4		
Greek.....	3	German language.	1		
Philosophy.....	6	Total.....	85		
French.....	1				
Economics.....	3				

**Expenses:**

Fees range from \$25 to \$75 in various colleges and schools.

Tuition free.

Room and board cost between \$30 and \$50 a month.

Graduation fee, if paid at time of matriculation, \$2.50; if paid at time of graduation, \$5.00.

**UNIVERSITY OF VIRGINIA, Charlottesville, Va., a city of 10,688 inhabitants, at the junction of the Chesapeake & Ohio and the Southern Railroads. Founded, 1819.**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

M. A. and M. S.—One year of postgraduate study.

Ph. D.—Three years of postgraduate study; thesis.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds: Chemical laboratories; Leander McCormick Astronomical Observatory; economic geology and petrography. There is a close affiliation with the Virginia Geological Survey.

B. Library facilities: 90,600 volumes. Fair collections in medicine, history, political science, and economics.

Number of M. A., M. S., and Ph. D. degrees during the three years 1916-1918:

M. A.:		M. S.:		Ph. D.:	
Total..... <sup>18</sup>	54	Total..... <sup>18</sup>	10	Astronomy.....	2
	==		==	Chemistry.....	1
				English.....	1
				History.....	1
				Total.....	5

<sup>18</sup> M. A. and M. S. subjects not specified.

## Expenses:

Tuition, free (in college and graduate departments) to students from Virginia.	
Tuition, nonresidents.....	\$135
University fee, residents.....	10
University fee, nonresidents.....	40
Room.....	50-135
Board, per month.....	18-30
Total annual expense.....	430-650

**UNIVERSITY OF WASHINGTON.** Seattle, Wash., a city of 315,652 inhabitants. Founded, 1861; coeducational.

## Graduate School:

Admission: Bachelor's degree from a recognized college.

## Degrees:

M. A. and M. S.—One year of postgraduate study; thesis.

Ph. D.—At least three years of postgraduate study; thesis. Limited at present to three departments: Chemistry, English, Botany.

## College of Education—Graduate courses:

Admission: Bachelor's degree.

Degrees: M. A. or M. S. in Education.—One year after A. B. or B. S.

## College of Business Administration—Graduate course:

Admission: Bachelor's degree.

Degree: Master of Business Administration.—One year of postgraduate study after award of bachelor's degree.

## College of Engineering—Graduate courses:

Admission: Bachelor's degree.

Degrees: M. S. in C. E., M. S. in M. E., M. S. in E. E., M. S. in Ch. E.—one year of postgraduate study after bachelor's degree; thesis.

The professional degrees S. E., E. E., and M. E. are conferred without resident study upon holders of the bachelor's or master's degree after at least two years and one year, respectively, of successful professional work and the presentation of a thesis.

## College of Pharmacy—Graduate course:

Admission: B. S. degree.

Degree. M. S. in Pharmacy.—One year of postgraduate study after B. S.; thesis.

## College of Forestry—Graduate course:

M. S. F. awarded one year after B. S. degree.

## College of Mines—Graduate course:

## Degrees:

M. S. in Mining Engineering.—One year of postgraduate study; thesis.

E. M., Met. E.—Professional degrees conferred without resident study upon holders of the bachelor's degree who have been engaged in professional work at least three years and who present a thesis.

## Noteworthy facilities for particular lines of graduate study:

A. Equipment and research funds: Marine station for study of marine life; close cooperation with the United States Bureau of Mines Experiment Station, Engineering Experiment Station.

B. Library facilities: 82,401 volumes. Other libraries, including the Seattle Public Library, containing approximately 250,000 volumes, are open to students.

C. Facilities for the publication of research results: University of Washington publications; Publications of the Engineering Experiment Station.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major subject pursued:

M. A.:	M. S.:	M. S.—Continued.
English..... 12	Bacteriology..... 3	Mining engineer- ing..... 1
Scandinavian..... 3	Physics..... 4	Electrical engi- neering..... 2
French..... 2	Botany..... 5	Metallurgy..... 2
Education..... 18	Zoology..... 7	Forestry..... 4
German..... 6	Chemistry..... 13	Pharmacy..... 2
History..... 5	Home economics..... 1	Education..... 1
Economics..... 1	Psychology..... 1	
Psychology..... 1	Mathematics..... 2	Total..... 50
Philosophy..... 2	Civil engineering..... 1	Ph. D.:
Political science.. 2	Chemical engi- neering..... 1	Total..... 19 2
Total..... 52		

**Expenses:**

Tuition (\$10 per quarter of 12 weeks).....	\$30.00
Graduation fee.....	5.00
Board, at university, per month.....	22.50
Room, at university, per year.....	54.00
Minimum annual expense.....	350.00

**UNIVERSITY OF WISCONSIN**, Madison, Wis., a city of 38,378 inhabitants, and the capital of Wisconsin. Founded, 1848; a "land-grant" institution; coeducational.

**Admission:** Bachelor's degree from a recognized college.

**Degrees:**

**M. A., M. S., Ph. M.**—A minimum of one year of postgraduate study.

**Ph. D.**—At least three years' postgraduate study; thesis.

**Dr. P. H.**—Two years' postgraduate work in public health for those holding M. D. from an approved medical school.

**C. E., M. E., E. E., Ch. E., E. M.**—One year of postgraduate study in engineering and thesis. Graduates of the College of Engineering of the University of Wisconsin who have spent three years in professional work—at least one of them in a responsible position—and who present a thesis, may also receive the advanced engineering degree without resident study.

In cooperation with the legislative reference department of the Wisconsin Free Library Commission, the library school of the university offers a special course of training for legislative and municipal reference work and the various sociological phases of library service. The course is intended for college graduates with special aptitude and personal qualifications for this type of library service who have a definite preparation in political science, economics, and sociology.

**Noteworthy facilities for particular lines of graduate study:**

- Equipment and research funds:** Laboratories in forest products (unique), physics, plant pathology, geology, chemistry, zoology, engineering, and agriculture; excellent facilities for research work in history and economics.
- Library facilities:** 263,000 volumes. Other large libraries, including the library of the State Historical Society, containing 208,000 volumes, are available for the use of students.
- Facilities for the publication of research results:** The University of Wisconsin Studies; Publications of the Washburn Observatory; publications of the Agricultural Experiment Station; Transactions of the Wisconsin Academy of Sciences.

<sup>19</sup> Subjects not specified.

Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major work pursued:

M. A.:		M. S.—Continued.		Ph. D.—Continued.	
Psychology.....	2	Agricultural eco-		History.....	7
History.....	27	nomics.....	9	Physics.....	4
Physics.....	8	Political economy..	2	Education.....	3
Education.....	19	Zoology.....	3	Botany.....	3
Inorganic chemis-		Chemistry.....	16	English.....	1
try.....	1	Chemistry of farm		French.....	1
Romance lan-		products.....	1	Plant pathology..	12
guages.....	7	Agricultural chem-		Political science	
Botany.....	10	istry.....	10	and history....	1
English.....	35	Geology.....	2	Germanics.....	6
French.....	7	Agricultural bac-		Mathematics....	1
Plant pathology..	1	teriology.....	7	Latin and Greek..	1
Sociology.....	10	Medicine.....	7	Political science..	2
Chemical engi-		Animal husbandry	8	Agricultural eco-	
neering.....	1	Experimental		nomics.....	1
Germanics.....	31	breeding.....	8	Political economy.	5
Mathematics.....	7	Agronomy.....	8	Zoology.....	5
Latin.....	10	Soils.....	7	Chemistry.....	4
Political science..	9	Electrical engi-		Chemistry of for-	
Agricultural eco-		neering.....	2	est products....	4
nomics.....	2	Home economics.	10	Geography.....	1
Political economy.	15	Physical educa-		Agricultural chem-	
Spanish.....	2	tion.....	2	istry.....	4
Greek.....	5	Agricultural edu-		Geology.....	3
Zoology.....	3	cation.....	3	Agricultural bac-	
Chemistry.....	7	Anatomy.....	2	teriology and	
Chemistry of forest		Pathology.....	2	soils.....	5
products.....	1	Structural engi-		Medicine.....	1
Geography.....	1	neering.....	1	Experimental	
Journalism.....	6	Pharmacology and		breeding.....	1
Agricultural chem-		toxicology.....	1	Pharmacy.....	1
istry.....	1	Hydraulic engi-		Physiological	
Geology.....	2	neering.....	1	chemistry.....	1
Philosophy.....	3	Pharmacy.....	1	Economics.....	1
Agricultural bac-		Horticulture.....	2	German literature.	1
teriology.....	1	Agricultural engi-		Agricultural and	
Medicine.....	2	neering.....	1	inorganic chem-	
Manual arts.....	1	Physiological		istry.....	1
Home economics.	1	chemistry.....	1	Chemical technol-	
Total.....	238	Economic ento-		ogy.....	1
		mology.....	3	Food chemistry..	1
		Economics.....	1	Psychology and	
M. S.:		Hydraulic and		education.....	1
Physics.....	1	sanitary engi-		Plant chemistry..	1
Education.....	2	neering.....	1	History and polit-	
Botany.....	6	Total.....	145	ical science....	1
Plant pathology..	9			Mathematical	
Sociology.....	1	Ph. D.:		physics.....	1
Chemical engi-		Psychology and		Total.....	88
neering.....	1	education.....	1		
Mathematics.....	3				

**Expenses:**

Tuition (free to residents of Wisconsin)-----	\$124
Incidental fee-----	50
Room at university-----	75-160
Board at university-----	180-240

**YALE UNIVERSITY**, New Haven, Conn., a city of 162,519 inhabitants. Founded, 1701,

**Graduate School:**

Admission: Bachelor's degree from a recognized college.

**Degrees:**

M. A.—One year of postgraduate study; essay (minimum requirement).

M. S.—Two years of postgraduate study; thesis.

Ph. D.—Three years of postgraduate study; thesis (minimum requirement).

C. P. H.—One year of postgraduate study; thesis (minimum requirement).

Dr. P. H.—Two years of postgraduate study; thesis (minimum requirement).

C. E., M. E., E. E., E. M., Met. E., Chem. E.—Five-year courses (or one year beyond bachelor's degree) in civil, mechanical, electrical, mining, metallurgical, and chemical engineering. Thesis.

**School of Forestry:**

Admission: Bachelor's degree from a recognized college, or, in certain cases, three years of college work.

Degree: M. F.—Two years' course. Students holding a degree in forestry from an institution of high standing may receive the master's degree at the end of one year.

**Divinity School:**

Admission: Bachelor's degree from a recognized college, or its full equivalent.

Degree: B. D.—Three-year course. Students may also enroll in the Graduate School as candidates for M. A. and Ph. D.

**School of Law:**

Admission: As candidates for a degree, bachelor's degree from a recognized college (except for Yale College seniors). As special students not candidates for degrees, two years' collegiate work.

**Degrees:**

LL. B.—Three-year course.

B. C. L.—Three-year course; and equivalent amount of work to that for LL. B. For B. C. L., courses in Roman law are prescribed, but not for L. L. B.

M. L.—One year's study for graduates of recognized law schools; thesis.

Jur. D.—One year's study for those holding a bachelor's degree and who are graduates of recognized law schools; thesis.

D. C. L.—Two years' postgraduate study, and in addition to requirements for admission to Jur. D., preliminary examination in Roman law and history, Latin, and either French or German; thesis.

**Noteworthy facilities for particular lines of graduate study:**

A. Equipment and research funds; Peabody Museum of Natural History; laboratories for zoology, physics and chemistry, forestry, pathology, and for mechanical, electrical, civil, and mining engineering. In astronomy, physics, and biology the university has large funds available for the

Noteworthy facilities for particular lines of graduate study—Continued.

prosecution of research work. In chemistry and engineering there are several lines of connection with the laboratories of industrial corporations.

The School of Forestry, founded in 1900, is strictly a graduate school and offers thorough training in all branches of forestry. Special endowments provide for the departments of silviculture, lumbering, and forest management. In addition to the usual classroom and laboratory subjects, a large part of each student's time is spent in practical field work, for which the school has at its disposal a tract of 1,000 acres at Milford, Pa., the forests of the New Haven Water Co., at New Haven, aggregating 9,000 acres, the school forest at Keene, N. H., and localities in the Adirondack Mountains of New York, and in the Southern States. The courses in tropical forestry are of especial interest to foreign students, and several students from South American countries have been authorized by their governments to attend the School of Forestry for this reason.

B. Library facilities: 1,100,000 volumes. Special collections: Oriental, Arabic, Chinese, Japanese, Russian, and Latin-American books and manuscripts; the libraries for paleontology, Roman law, Scandinavia, classical literature, political science, music, and the Aldis collection of American belles lettres; a large collection of books on anthropology and ethnology; 17th and 18th Century works by German authors; an unusual collection of American colonial newspapers; notable collections of Goethe editions and of Elizabethan writers. The university also has notable collections of early Italian paintings, of Greek and Etruscan vases, and of Babylonian tablets.

C. Facilities for the publication of research results: Yale University Press, Number of M. A., M. S., and Ph. D. degrees granted during the three years 1916-1918, listed according to the major subject pursued:

M. A.:		M. A.—Continued.		Ph. D.—Continued.	
Chemistry.....	4	Botany.....	1	Bacteriology and hygiene.....	6
Geology.....	1	Physics.....	1	Physics.....	5
German.....	1	Geological sciences.....	1	Social sciences....	6
History.....	6			Mathematics.....	2
Romance languages.....	1	Total.....	46	Zoology.....	4
Semitic languages	3			Geological sciences.....	5
Social sciences....	3	M. S.:		Romance languages.....	2
Zoology.....	5	Total ".....	14	Geology.....	4
History of religion.....	2			Germanic languages.....	1
Philosophy and education.....	3	Ph. D.:		Philosophy and education.....	2
English.....	4	Classics.....	6	Botany.....	2
Bacteriology.....	1	Chemistry.....	14	Geography.....	1
Classics.....	1	English.....	18	German.....	1
Philosophy.....	1	Physiological chemistry.....	6		
Mathematics.....	1	Semitic languages.....	6	Total.....	97
Physiological chemistry.....	1	History.....	5		
History and philosophy of religion.....	3	Philosophy.....	5		
		History and philosophy of religion.....	2		

\* Subjects not specified.

**Expenses:****Tuition—**

Graduate School.....	\$125
School of Forestry, junior year.....	150
School of Forestry, senior year.....	125
School of Law.....	150
Diploma fee.....	10
Board, per week, \$6 and upward.	
Room, per week, \$2 and upward.	
Total annual expense.....	400-1,000

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DEPARTMENT OF THE INTERIOR

U.S. BUREAU OF EDUCATION

BULLETIN, 1921, No. 7

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# ORGANIZATION FOR VISUAL INSTRUCTION

By

W. H. DUDLEY

THE UNIVERSITY OF WISCONSIN



WASHINGTON  
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## EXPLANATORY NOTE.

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The visual instruction section of the division of educational extension of the Bureau of Education has within the past few months deposited in each of 35 distributing centers throughout the country an average of 113 reels of motion-picture film. In each of these centers these will be at once, or shortly, a part of a motion picture library. There are now well-established distributing centers of educational motion pictures within easy reach of the schools or other educational organizations, public or voluntary, in most of the States. This fact, and the additional fact that the production of educational motion pictures is receiving such constantly increasing attention, remove very largely the difficulties that have been in the way of any wide use of the motion picture for education—difficulties due to the inaccessibility and inadequacy of a suitable supply of films.

The technique of local distribution becomes, therefore, an important matter for both the distributing center and the user, since with the distributing center at hand and the sources of material becoming richer, success will depend on how well distributor and user cooperate.

It is with the hope of being of assistance in this matter that this bulletin is issued. Mr. W. H. Dudley, who has prepared the bulletin, has drawn largely upon his own experience in Wisconsin, where, as chief of the visual instruction bureau of the Extension Division of the State university, he has built up a system which has attracted Nation-wide attention. Mr. Dudley's explanations will save others some of the difficulties he has had to overcome by experience.

F. W. REYNOLDS,  
*Director Visual Instruction Section,  
Division of Educational Extension.*

# ORGANIZATION FOR VISUAL EDUCATION.

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## I. EDUCATIONAL USE OF MOTION PICTURES.

The man of vision and mental reach to-day is thinking of the motion picture in terms of service to education, to commerce and industry, to science and art, to religion and philanthropy; in short, of benefit to humanity.

Speaking of the educational value of films, President Emeritus Eliot, of Harvard, says: "The moving picture is a valuable means of instruction, and all our school systems ought to seize upon it."

"The time is at hand when moving pictures will be as much an adjunct of any properly equipped school as textbooks," writes Supt. Hyatt, of California.

"Indeed, the educator must use it," says Henry W. Lanier, "for at the present time film manufacturers are educating about 5,000,000 children a day along more or less undesirable lines."

We may safely assert that we have even now passed beyond the propaganda stage. It is no longer a question of worth while, but rather one of ways and means to an end now recognized by leading educators as a most worthy and fruitful one. It is not a question of the great possibilities or the practicability of such service; not a discussion of theories, or of some ultimate ideal for the remote future; we are past that period in thought and largely in action. It is now a question of how to realize in practice, and with the greatest efficiency and economy, the fullness of vision we already behold.

And may it not be said parenthetically and at the outset that we must get away, so far as university extension is concerned, from the "side line" idea of visual instruction, if it is to become a worthy part of our educational scheme. It is not enough simply to have a clerk in a hit-and-miss way lend slides and films and exhibits to those who ask for them, and who may know how to use them and may not.

Recognizing, then the existence of visual instruction material and service as an established element of education, what next follows is to study some of the larger and more practical problems involved, the working out of plans whereby the largest and most efficient and truly educational service with a minimum expenditure of resources can be rendered.

## FILMS FOR SCHOOLS—FOR ADULT EDUCATION.

The fact must not be overlooked that our university extension departments are largely, perhaps we may say chiefly, committed to the work of adult education, of carrying instruction to those not

formally enrolled in schools. We therefore have two rather distinct classes of borrowers—the schools on the one hand, relying for material to use in formal classroom work, and on the other hand civic and community organizations of many sorts, whose needs and desires differ from one another to a greater or less degree and in particular from the somewhat stereotyped needs of the schools. Either of these two classes of borrowers alone—the standing army of the public schools and the militia-like civic centers, women's clubs, farmers' clubs, community welfare organizations, parent-teacher associations, etc., on the other—presents demands sufficiently large to absorb all the energies and resources of a well-organized and abundantly stocked department of visual instruction. Among our problems, therefore, is how to prepare for and meet these two kinds of calls without too much overlapping or duplication of work and material.

## II. A VISUAL INSTRUCTION BUREAU: ORGANIZATION AND OPERATION.

### IMPORTANCE OF DEFINITE PLANS.

Visual instruction service, to be worth while, requires careful organization and administration, the adoption of a definite educational policy, a study of the needs of borrowers with a view to fitting the service to those needs, and unceasing attention to mechanical details. Films and slides are expensive and must, therefore, be kept track of, repaired when needing repair, and otherwise be well cared for. It is important that visual instruction materials be kept reasonably busy. All this requires time, accurate records, the proper use of time-saving blanks, forms, etc.

The practical details of the organization and operation of a bureau of visual instruction, its relation on the one hand to sources of material—such, for example, as those of the departments of the Federal Government—and on the other to borrowers whom it serves, become at the outset exceedingly important.

### VISUAL INSTRUCTION BUDGET ESTIMATE.

The following estimate is intended to suggest only the minimum personnel, equipment, cost, etc., required to enable any center to carry on effective work in visual instruction and to qualify as a safe and satisfactory depository for Government films and slides. It is recognized that established conditions vary in different universities, involving in some cases an overlapping of activities that will necessitate a different distribution of work. The essential thing is to recognize that visual instruction service involves much attention to detail, both as to its educational and mechanical features; it

should, therefore, not be made merely incidental or subservient to other work.

**A. Personnel:**

1. Booking and record clerk, annual.....	\$1,000
2. Film and slide inspector, repairer, and packer, annual.....	600
3. Stenographer, possibly part time only, annual.....	720

**B. Equipment:**

1. Proper vault or room for storage of films.
2. Moderate-sized workroom with tables, shelving for slides, etc.
3. Film shipping cases, slide cases, reel cans, repair material for both films and slides, etc.

**Film cases, chief items—**

Five 6-reel cases, at \$3.00.....	\$18.00
Two 5-reel cases, at \$3.50.....	7.00
Six 4-reel cases, at \$3.20.....	19.20
Six 3-reel cases, at \$2.60.....	15.60
Six 2-reel cases, at \$2.....	12.00
Six 1-reel cases, at \$1.75.....	10.50
Twenty-five 1-reel film storage cans, at 35 cents.....	8.75
Twenty-five 1,000-foot metal-hub film reels, at 35 cents.....	8.75
One roll caution labels.....	1.00
One film rewind.....	10.00
One film-patching block.....	10.00
1,000 feet blank white leader film.....	10.00
1,000 feet university ownership leader.....	50.00
One film inspector's table.....	25.00
One quart film cement.....	2.50
Fifty 100-slide shelf boxes, at 15 cents.....	7.50
One case lantern-slide cover glasses (1,000 covers).....	11.00
Lantern-slide mats, binding strips, etc.....	3.00
Twenty-five lantern-slide shipping cases, at \$4.75.....	118.75

The above estimate includes no provision for the *production* of either motion-picture films or lantern slides. Few university visual-instruction departments will find it practicable to establish a film-producing laboratory with the necessary equipment and personnel, as limited quantities of films from local subjects can usually be done cheaper by contract. On the other hand, a very efficient dark room for slide and other photographic production can be fitted up at an expense of \$500 or even less, and many bureaus of visual instruction will find it economy to include such provision.

**BOOKING AND RECORD CLERK.**

The booking clerk can carry on most of this detail work, such as the booking of programs, keeping of records, inspection of reports, advise on problems of projection, etc., and can, if properly directed, handle some of the educational and advisory features of the service, such as the selection of slides and films, the organizing of programs, the selection of proper material for specific needs, etc.; yet the fact must not be lost sight of that a department of visual instruction is

not merely a film exchange, but, on the contrary, calls for much educational and constructive oversight and direction—a work that should not be placed exclusively in the hands of a booking clerk. Neither must it be forgotten that the more strictly clerical features of his work are no less important.

### BLANK FORMS.

In several university extension divisions sustaining a department of visual instruction, various blanks, forms, report cards, etc., have been worked out. It is not practicable to reproduce these forms in this bulletin, although a full sample set of those prepared by any one of the universities referred to can doubtless be had upon request. The forms as now used in the university extension division of Wisconsin may be listed and briefly described as follows:

1. Purchase or Accession Card.  
For permanent file, showing sources of films or slide sets, their release dates, condition, and other data.
2. Film Inspection Card.  
For keeping record of each film as it is used from time to time, the entire series of cards on any film constituting its history.
3. Film Assembly.  
Consists of the subtitles or captions that run through a film. Useful in giving preliminary information in lieu of screening the film for that purpose. Assemblies of all films should be copied and stenciled.
4. Slide Inspection Card.  
Similar to film inspection card. Series of cards on any set shows extent of use, auspices, etc.
5. Slide Order Card.  
For use in making requisition on dark room or purchasing department.
6. Lecture Manuscript.  
A stenciled syllabus to accompany each set of slides. Being printed in quantity, it can be placed in the hands of borrowers before slides are forwarded, thus insuring more thorough preparation.
7. Blue Print of Slide Shipping Case.  
Plans and specifications of the double wooden case recommended by the visual instruction committee of the National University Extension Association.
8. Application Form for Slide and Film Service (Direct).  
Contains contract and conditions relating to service by the *direct* plan.
9. Order Blank.  
For use of borrowers.
10. Shipping Ticket.  
In triplicate, three colors—to be made out in carbon, one copy to borrower, one to shipping clerk, and one for serial file.
11. Report Card (direct service).  
To be mailed by borrower at time of return of films and slides.
12. Preliminary Circuit Schedule.  
An announcement of the contents of circuits offered, permitting borrowers to make intelligent choice of circuits.
13. Circuit Application Form.  
Similar to form used in direct service.



**14. Circuit Schedule.**

A formal grouping of films and slides in "packages" for circuit or routing service, showing order of arrival of packages, etc.

**15. Circuit Chart.**

The entire itinerary of a given circuit, showing towns included, borrowers, and dates of arrival of packages.

**16. Circuit Report Book.**

Similar to report cards for direct service, but in triplicate, one copy to remain in hands of borrower reporting, one to go with package to next borrower, and the third to be mailed to visual instruction department in special envelope provided.

**17. Circuit Report Envelope.**

This envelope is specially prepared, with blanks for data printed on the outside, and reports are filed in them.

**18. Operating Booth, Blue Print and Specification.**

Prepared to conform to underwriters' requirements.

**FILM AND SLIDE INSPECTOR—SHIPPING CLERK.**

*Repairing films.*—The most vital mechanical problem is to keep the films and slides in proper repair. A new reel of film costing \$100 may be ruined in a comparatively short time if it is not inspected *after each run*. A slight tear or break, if not immediately mended, may in a short time grow to disastrous proportions. Every reel should, therefore, be gone over in the rewind before it is run through a projection machine, and with the aid of a splicing block and good film cement all tears or weak splices made whole. In splicing, the two members to be united should be so trimmed that when inserted in the splicing block they will be properly *framed*. The emulsion sides (dull) should be uppermost; about an eighth of an inch of the emulsion of one member of the splice should be first moistened, then scraped away with a sharp safety-razor blade, after which a small quantity of cement should be applied to the exposed surface, upon which the shiny side of the opposite member should be clamped down in the splicing block, there to be left (30 to 60 seconds) till the cement sets. If the overlap at the splice is very narrow, the film will run smoothly through the projection machine. Any badly torn sections of film should be cut out entirely and the gap bridged over by splicing.

The film inspector in each center should supply each borrower using his films with careful instructions for inspecting and mending films, insisting upon such inspection after every run whenever films are to be exhibited more than once while in his hands.

*Repairing slides.*—Each slide consists of two glasses—the slide proper, which bears the picture, and the cover glass. These two thin glasses are held together by means of a strip of binding paper, the emulsion or gelatine side of the slide being next to the cover. When slides are cracked, the damage may be in the cover glass only, which can be repaired by simply removing the binding strip and

substituting a new cover. This should be done at once, before the slide, weakened by a broken cover, also becomes broken. If the slide proper is broken it should be replaced by making or purchasing a new one.

*Shipment of films.*—Whether forwarded by express or parcel post, inter-State and postal regulations prescribe the use of a standard film shipping case, made of galvanized iron, fiber lined, metal hinged cover, and provided with hasp and snap. "Telescope" cases, or those with leather or web straps, are no longer permitted. Cases are made in sizes from 1-reel to 7-reel, inclusive. It is not required that reels should be in individual film cans when shipped in regulation cases.

In addition to the usual address label on a case of films, there should also be attached a "caution label," indicating the inflammable character of the contents. These cases, labels, etc., can be purchased of any motion-picture supply house, a list of which will be found on another page.

Films when sent by express are given an insurance valuation up to \$50 without payment for insurance beyond the regular express tariff. For a valuation above \$50 a charge of 10 cents for each additional \$100 or fraction thereof is made. Each reel of film should be entered in the express receipt with a valuation of \$50, although on a shipment not exceeding six reels a total declared valuation of \$150 is sufficient to insure proper precautions in transit. If sent parcel post, insurance must be taken out either with the Post Office Department or one of the regular insurance companies. The latter provide insurance books, which are most convenient and carry a lower rate than that written by the postal authorities.

*Storage of films.*—When not in use films should be filed in a vault or a cool, dry, fireproof storage room, preferably provided with outside flue or connection for the escape of gases which gradually emanate from the films. Each reel should be kept in an individual film can. These cans are supplied by the trade, either in tin or galvanized iron.

#### MOTION PICTURE AND LANTERN SLIDE SUPPLIES.

Various supplies, such as metal reels, shipping cases, vault cans, etc., will be required by distributing centers. Supply houses for such materials are located in all the larger cities.

*Motion-picture machines.*—Following is a list of some of the leading manufacturers of motion-picture machines. The motion-picture projectors are grouped under three heads: "Professional," "portable," and "semiportable."

**Professional:**

Simplex—Precision Machine Co. (Inc.), 317 East Thirty-fourth Street, New York, N. Y.

Motigraph—Enterprise Optical Manufacturing Co., 521 West Randolph Street, Chicago, Ill.

Cameragraph—Nicholas Power Co., 88 Gold Street, New York, N. Y.

Veriscope—Wilboken Manufacturing Co., 248 Reed Street, Milwaukee, Wis.

**Portable:**

American Projectoscope—American Projecting Co., 6235 Broadway, Chicago, Ill.

DeVry—The DeVry Corporation, 1250 Marianna Street, Chicago, Ill.

Acme—United Theatre Equipment Corporation, 1602 Broadway, New York, N. Y.

**Semiportable:**

Graphoscope, Jr.—The Graphoscope Co., Washington, D. C.

Animatograph—Victor Animatograph Co., Davenport, Iowa.

Zenith—Consolidated Equipment Co., Duluth, Minn.

It should be pointed out that the fire regulations in most States require that *all* machines, whether professional or portable, which employ inflammable films must be housed in a fireproof booth. Thus far the great bulk of motion-picture films of standard width are on inflammable stock. This is true of practically all films supplied by the Government.

### III. A VISUAL INSTRUCTION SERVICE: FUNDAMENTAL CONSIDERATION.

#### VALUE OF CIRCUITS.

A fundamental consideration in building and administering a service in visual instruction is that of the function and value of circuits—their limitations in a pedagogical sense, their value in community education, their advantages as a stimulus to constant and unremitting effort and preparation on the part of borrowers; the disadvantages, if such there are, as well as the advantages of the arbitrary element in the circuit; the advisability of circuits for special classes of borrowers, such as industrial schools, and on special subjects, as agriculture, etc.

It may here be said that the circuit plan of distribution can be prosecuted successfully, as has been fully demonstrated in Wisconsin, where circuits have been in operation for six years, and with increasingly gratifying results. It is in line with systematic and constructive effort to have a yearly program worked out in advance, a program around and upon which borrowers can build and to which other instructional efforts in the schools and other centers served can to a large extent be made to bend and contribute.

Circuits, however, require more work than simply that of preparing sets of slides and films with descriptive manuscripts and then starting them to circulating. Borrowers must be instructed and educated

in their proper uses; the manuscripts must be in their hands long before the arrival of the slides and films, so that intelligent and thorough preparation can be made, involving the collection of supplementary material, such as free bulletins from Federal and State sources, of books from the library commission; the enlistment of the local library in placing on the current shelves at the proper times all available books and documents bearing on the subjects included in the circuit, and of advertising them by the usual methods employed by libraries; the securing of package libraries from the department of public discussion for the use of the one or the ones who are to discuss the slides and films.

#### CIRCUITS STIMULATE HOME STUDY.

Such a procedure inaugurated and persistently followed up by the ones directing the circuit will bear fruit in the awakening of an entire class or school or community to a preliminary study of the substance of a routing package, so that when the slides and films arrive they will be received like seed falling into fertile soil, which, being properly prepared, makes possible depth of root and the bringing forth of fruit, some 30, some 60, and some 100 fold.

Moreover, such a procedure makes possible self-activity, that most vital element in worth-while education, and the self-activity not only of the one or ones in the community directly in charge of the routing package for the week but of all involved, whether lecturers or listeners— it “blesseth him that gives and him that takes.”

Indeed, more lasting benefit has often been secured to a community through such organized activity of its own citizens, thus stimulated and directed and supplied with educational implements, than would have been possible by the employment of “outside talent” in the way of lecturers, institute workers, etc. Perhaps the secret of this lies in the fact that people prefer to work out their own schemes of life independent of authority rather than listen to the “thou shouldst” of an alien. One need under such circumstances have no fear of the “canned lecture.” It will, as a result of the treatment just suggested, have undergone so complete a fermentation as to show unmistakable evidence of vitality of the most virile and procreative kind.

#### COOPERATION WITH COMMERCIAL EDUCATIONAL AGENCIES.

A second general consideration relating to a visual education service that may well engage our serious thought is the work being done by the educational departments of some of the large industrial corporations, or associations of such corporations, throughout the country. One need only look at a map of the United States recently issued by one of these corporations, with its attendant legend, show-

ing slide and chart services in every State of the Union, circulating 125,000 slides and as many charts which were used in approximately 50,000 meetings, with an aggregate attendance of nearly 5,000,000 people, to have forced upon one the question, Are these educational forces more aggressive, more wide-awake, and efficient than those established by the State? And are they to set the pace, fix standards and ideals, and even to an extent dominate or supplant the work of the universities? Or should they have their natural outlet through and in cooperation with the departments of university extension? This is an important question, and should be considered by all visual education departments. It would seem as though well-organized visual instruction bureaus in universities, having the machinery to handle and distribute slides and films and educational exhibits, should by proper agreement on a definite policy be able not only to continue to use educational material from these sources, as many are already doing, but to set certain standards and conditions of cooperation on the part of these contributing organizations that would be wholesome and safe so far as university extension service is concerned, and that would be wholly acceptable, and indeed advantageous to these industrial organizations in furthering their educational efforts. At this particular juncture the problems involved in this question, together with the one of the systematic production of films by the university extension divisions, are of greater importance in their bearing on future visual instruction activities than any now before us.

#### PRODUCTION OF FILMS BY UNIVERSITY EXTENSION DIVISIONS.

University extension film service will never be raised to the dignified and efficient plane that it should occupy until it is equipped with camera and operator for the production of films. Most of the films in educational use to-day are isolated theater films having more or less instructional value, or industrial films produced for direct or indirect promotional purposes. Nearly all these films, of either class, contain elements which, to say the least, we would prefer to have different or omitted entirely. It is true a few producers are endeavoring to release for the market exclusively educational films, but the success of their efforts is problematical. Their producers either lack the proper pedagogical training or the capital to finance such an undertaking, or both. Their chief customers must be bureaus of visual education and educational film exchanges. Schools or societies would rarely be able to make so large an investment as film purchase would involve. If film producing companies of this sort succeed financially, it will be at the cost of that thorough study of the things most important to be taught, and of minute attention to details of instructional arrangement that films should have in order to meet the rigid demands of our university extension service.

The most logical solution of this problem, therefore, lies in producing ourselves a large proportion of the films we need. Not all, of course, but there is a wealth of subjects that can be organized and filmed more successfully in a great university, with its enthusiastic specialists and experts, than anywhere else. One university, for example, could produce a film on antitoxins, vaccines, and serums in their relation to communicable diseases far better suited to educational use than any on the market at present. An admirable film was recently produced on a biological subject, which would have much greater value and could be used with greater satisfaction if it were free from biological errors—errors that would not have crept in had its production been aided in and censored by men from the biology department of one of our universities. Illustrations could be multiplied almost indefinitely of films of the highest educational value that could be produced in the university and with the aid of the university staff.

#### STATE AND MUNICIPAL STUDIES POSSIBLE.

We must recognize also the tremendous value of having at our disposal the means of making studies of State institutions, State activities, and State problems. Here follows a list of films that could be produced under the central guiding direction of the bureau of visual instruction, if it were equipped for doing simply the camera work. The list is for Wisconsin. It can be modified to fit any State.

##### \* THE COMMONWEALTH.

Its scenery, State parks, natural resources, etc., could be planned and executed in cooperation with the Conservation Commission, State Federation of Women's Clubs, local park and outing clubs, etc.

Its industries—manufacturing, agricultural, commercial, etc.: The lumber industry could be made in cooperation with the lumber dealers' association, and in like manner the iron industry, the paper industry, the butter industry, the leather industry, the woolen industry, the ice industry, the furniture industry, the cheese industry, lead and zinc mining, and general agriculture. Films produced on correct pedagogical lines showing processes in these industries would have the utmost value. They could be made by interesting the proper associations.

Its history: Views taken on historic ground throughout the State. Historical pageants of different sections of the State could be worked out by the normal schools and larger high schools on historic ground, and be brought together and unified.

Its social conditions: The various "movements"—garden, infant welfare, good roads and highways, sanitation projects, bird study, libraries and library activities, playground, the boy problem, State and county fairs, etc.

Its charitable and penal institutions: State, county, and municipal. A thorough study of these would be most valuable.

Its educational institutions and forces: Ideal rural schools, consolidated schools, graded schools, high schools, continuation and industrial schools, county training schools, county agricultural schools, State normal schools, State university.

Its governmental machinery: State, county, and municipal—legislative, judicial, executive, commissions, etc. Films, in much the same manner as we are

now preparing slides, should be produced to supplement and illuminate the textbooks, as in botany and other sciences, physiology and hygiene, history, literature, agriculture, languages, etc.

### COST OF FILM PRODUCTION.

It may not be profitable to devote space to a discussion of the cost of film production more than to give two or three illustrations. There was produced for a certain university by a film concern a film of 1,000 feet, costing \$250 for the negative and one positive. Another reel was made by a local camera man on the basis of furnishing him the stock (at a cost of \$35 for the negative film and \$32.50 for the positive film) plus \$2 per hour for his time and work. This film cost \$195. It is better than the one produced by contract. Assuming that an extension division has a camera and a man competent to operate it, but no equipment for developing the negative or printing and developing the positive, there would be an additional cost of  $1\frac{1}{2}$  cents per foot for printing and developing the positive, and of 1 cent per foot for developing the negative, or the total cost would be \$92.50 for the reel, including negative and positive. This, deducted from \$195, the lowest price paid under contract, leaves a margin of \$102.50

It will be observed that this \$102.50 must all have gone to the camera man for his work with the camera alone. In the particular instance before us the camera work was distributed over three different days. This sum would nearly pay the salary of a camera man for a month. A camera of the highest grade can be purchased for \$600; one thoroughly practical for \$300. It would, therefore, be more economical to have a camera and a man to do the work, even on the basis of the production of only 12 reels per year. But note that the actual production of 12 reels would consume comparatively a small part of the man's time, leaving him free for other work, such as the care and repair of films. If films were made on a semicommercial basis for other organization, such as the historical society, State teachers' association, State and county fair associations, etc., the proposed position could be made in part self-supporting.

### FILM PROGRAMS FROM RENTAL SOURCES.

An increasingly important type of service is that of the renting of films from the regular producers and film exchanges for university extension work. It is well understood by those who have had any experience in handling films that there are many subjects possessing distinct value in extension work that, even though it might have a film camera, could not be made by an extension division, because of intrinsic difficulties; neither can they be purchased, either because the cost is prohibitive or because of their not being purchasable at any price. We could not, for example, purchase the Francis X. Bushman production of *Romeo and Juliet* or the Mary Pickford

version of *Cinderella*, though they can be rented. A list of two or three hundred subjects, selected from various producers and exchanges, could readily be prepared, that could be made available for rental purposes through the university extension divisions—the extension division, indeed, acting in such a connection as an exchange, being entitled to the same discount rental terms as an exchange. The films could be offered to the schools and communities at cost, or at a slight advance over cost, and at a distinct saving to the schools on what they would have to pay were they to deal with the exchanges separately and individually.

These selected films would be the best that have been produced—best in the sense the term is used by the National Committee of Review, by the various committees from woman's clubs, civic clubs, etc., and who are passing resolutions, introducing bills in the legislatures, etc., to bring about reforms in the movie theater program. It would be sure constructive effort for good; and just as the introduction and free circulation of our best books into our communities and schools through the school and public libraries, and by the traveling libraries from the State library commission, have done so much to destroy a taste for the dime novel and other lurid literature, supplanting them with a craving for the best, so the theaters and producers would be forced to cater to the demand for a higher tone in films—a demand growing out of the systematic cultivation through the schools and civic centers of a taste for that which is clean and wholesome, and that will stimulate and satisfy one's nobler thoughts and feelings. The need for laws and boards of censorship to "regulate" would largely disappear.

This plan would have the added advantage of helping to shape and direct the taste of those working for community good who have occasion to rent films in addition to those owned and supplied by the extension division—and there are many who need this training. When a school has installed a standard motion-picture machine at a cost of \$300 or more, those in charge of it are like a child with a new toy; they want to run it frequently: they want more films and films of a different type than those offered in the usual way. These films are in demand for special occasions or needs, sometimes even for the production of revenue to be used in furthering a worthy community enterprise, such as the purchase of playground apparatus and the like. An extension division's sphere of service would be considerably enlarged if it had such a list from which to draw and which it could positively recommend. It would then not be obliged to turn inquiries for supplementary and special material over to the tender mercies of the film exchanges, subjecting them to the exchange's dangerous "sight unseen" policy.



**COOPERATIVE RENTING.**

Here is a direction in which intervarsity cooperation, or cooperation with the visual instruction section at Washington, could be practiced to great advantage, and in a way perhaps in some degree resembling the cooperation now in vogue among the lecture departments of some of the universities. There are many film producers who would gladly print new copies of very desirable films for the exclusive use of our extension divisions if a few universities could get together on a program that would keep these films active for a reasonable length of time throughout a given season.

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**IV. WISCONSIN PLAN—A TYPICAL BUREAU OF VISUAL INSTRUCTION.**

Following is a brief account of the work in visual instruction as it is actually being carried on in the extension division of the University of Wisconsin:

The bureau referred to was established in January, 1914, for the purposes—

(a) Of making a thorough and systematic study of the various materials that may be employed in illustrative teaching, or in instruction through the medium of the eye;

(b) Of devising plans for placing such illustrative material within easy and constant reach of the schools and other social organizations of the State; and

(c) Of giving advice, direction, and personal assistance to schools and other organizations availing themselves of this service, in proper methods to be employed in the use of slides, films, and other visual instruction material to the end of accomplishing the maximum good, and in ways that will stand the test of educational criticism.

The work of the bureau involves the following features:

1. *Lantern slides.*—The accumulation of a carefully selected library or collection of educational lantern slides, arranged in definite sets to fit definite school and community subjects and problems. These are being lent to the schools of the State for use in connection with the regular class work in the schools, and to other organizations for community welfare work. These slides are to some extent purchased wherever available, but for the most part they are made in the bureau, which is equipped with an up-to-date photograph department in charge of a thoroughly competent slide maker and colorist. The material for the slides is collected and edited by members of the university faculty and others who are authorities on the subjects treated, and who also write the descriptive matter to accompany them.

2. *Motion picture films for schools.*—The extension division recognizes that the motion picture, which has thus far been a means primarily of entertainment and amusement, has vast educational possibilities, and should be brought into regular use in all departments of school work from the primary to the high school, as well as in community welfare work. To that end motion picture films are being constantly accumulated to lend to schools and other civic organizations throughout the State wherever provision in the way of machines, etc., is made for the use of such films.

The bureau keeps in close touch with such schools, and stands ready to render every assistance, both by correspondence and by personal visits, to the end of securing the most thorough and efficient organization of this work in the schools which undertake it.

3. *Films for community gatherings.*—Recognizing, as we must do, that to properly entertain the people is one of the most important functions of modern educational machinery, the bureau also provides, for free use throughout the State, sets of slides and films on somewhat popular subjects—travelogues, films on health, social problems, standard dramas, juvenile features, etc., suitable for more or less formal evening meetings, where all the people of a community can meet for enjoyment, recreation, and education.

4. *Other aids in visual instruction.*—In addition to the above the bureau serves as a clearing house and a source of information concerning all other sorts of material properly coming within its scope, such as pictures, plates, cabinet collections, microscope slides, working material in the various sciences, etc., the aim being to serve the schools and the people as fully and efficiently as possible, together with that economy that must result from a carefully conducted, centralized organization.

#### EXTENT OF SERVICE.

There are now in service something over 125,000 lantern slides on between 250 and 300 subjects, and about 4,000 reels of motion picture film of 1,000 feet each on over 200 subjects.

Two plans of administering the service are in practice—the “circuit” and the “individual service” plans.

#### CIRCUITS.

Circuits are established wherein the slides and films are forwarded from one school or community to the next in line, without first being returned to the bureau. By virtue of such a routing the material involved is used in the most economical way possible so far as time and labor and expense of transportation are concerned. It is moving systematically and at regular weekly intervals from place to

place; the stations on the circuits are comparatively close together, and expense of transportation is therefore light.

During the school year 1919-20 thirteen circuits were in operation, wherein service was extended to 275 communities, involving the circulation of 20,000 slides and 1,000 reels of film. Although the number of different slides and films was thus comparatively small, the number used amounted to 427,500 slides and 25,000 reels of film. This, obviously, is a convincing argument in favor of the establishment of circuits.

#### INDIVIDUAL OR SPECIAL SERVICE.

In the individual or special service plan slides and films are lent direct from the bureau. During the fiscal year 1918-19, 2,050 sets of slides averaging 75 slides to the set, and 4,560 reels of film were sent to 750 different organizations in 560 towns and cities. Obviously where shipment is made to more or less remote parts of the State, in each case to be returned to the university before going out on another trip, the time consumed in transit is much greater, which of necessity reduces the actual amount of use of the material. Again, the expense is greater, due to longer distances and the extra return shipment. So far as can be determined from the evidence at hand, the expense to the borrowers on the routing plan has averaged 40 to 60 cents per week, a total of about \$11 for the year. The average expense on the individual service plan amounts to about \$1 or \$1.50 for the round trip on each shipment.

An advantage of the direct or special service over the routing service plan lies in the fact that it is often desirable, and by this plan is possible, to get slides and films on a certain subject at the time that subject is under consideration. This can in part be met in the routing plan if the borrower will carefully study the year's routing schedule when it is issued, and thus learn when the various collections of slides and films will reach him. He can then plan ahead, and bend the school work in a degree to accommodate it to the service.

The following brief tabulation of the visual instruction work during the fiscal year July 1, 1918-July 1, 1919, may be of interest:

#### *Circuit Service:*

Number of circuits in operation.....	10
Number of schools and centers on these circuits.....	250
Number of slides on these circuits.....	21,400
Number of films on these circuits (reels).....	700
Number of schools and centers in these circuits receiving both slides and films weekly for school year.....	100
Number of schools and centers receiving films only.....	75
Number of slides shown.....	427,500
Number of reels of film shown.....	17,500
Gross attendance at all meetings, as shown by weekly reports..	432,000

*Special Service:*

Number of schools and centers receiving direct or special service (many of these were also on the circuits)-----	750
Number of sets of slides thus supplied-----	2, 050
Number of slides shown-----	153, 750
Number of reels of film thus supplied-----	4, 560
Average number of people in the audiences where films and slides were used (as shown by weekly reports)-----	500
Gross attendance at all meetings-----	1, 560, 000
Number of schools and other public organizations provided with stereopticians-----	425
Number of schools and centers provided with standard motion-pic- ture machines using standard films-----	230
Gross attendance at all meetings, both circuit and direct service----	2, 022, 000
Total number of bookings of films and slides, including circuit and direct service plans-----	6, 020

**DEFINITE TIME LIMIT ON LENDINGS.**

Each place on a circuit, and each borrower of material direct from the bureau, has the privilege of holding the packages of slides and films *an entire week*. This arrangement obviates congestion or delay, and enables schools to make more abundant and thorough use of material.

The number of visits of slides and film packages in a given circuit is limited to 25, the circuits starting November 1 and closing May 25. The number of reels of film in each routing package varies with the subject. There are never, however, less than three full reels, and in many cases there are four to six reels. Industrial subjects for the most part are included as extra reels along with other films.

**EQUIPMENT OF SCHOOLS AND CENTERS.**

A significant feature attending the establishment of the bureau of visual instruction was the prompt response which it immediately met from the schools and other centers throughout the State. Obviously, for a university-extension division to hesitate to purchase films and slides and offer such service to its State on the ground that so few schools are equipped with machines that it would not pay is putting the cart before the horse. Once establish a film and slide library and the machines will be installed faster than they can be given the service.

Requests are received frequently for advice in the matter of purchase and installation of a lantern or motion-picture outfit. Clearly it is not the function of the bureau to select machines for schools, or to recommend any particular make. The bureau takes the position, however, that an equipment installed in a school should be as efficient and standard in every way as one that goes into a theater. There are many cheap and inferior machines on the market that through mis-

taken ideas of economy are thought to be "good enough for schools." They are bound to be disappointing from the first, are more or less a source of danger, and are likely to injure the films. The bureau reserves the right to deny or withdraw film service to a school if it becomes apparent that the machine in use is unduly hard on the films.

All the institutions on the circuits have their own outfits. Indeed, the circuit service is not open to an organization that is without stereopticon or motion-picture machine, and would hence have to use the films in a theater. Films and slides on the direct-service plan may be used in theaters when handled by schools or community-welfare committees, and where all private commercialism is eliminated. The proceeds, if admission is charged, must all be devoted to public-welfare purposes. Fortunately most of the makers of standard machines give special educational terms and prices to schools, hence the cost of a suitable outfit need not be a serious problem.

A list of stereopticons and one of motion-picture machines approved by the bureau is available to those contemplating installing a machine. School authorities are advised to get catalogues from all these concerns and make careful investigation in the light of individual needs, such as kind of light necessary, whether to be used in the country or for experimental work, etc., before deciding upon what to purchase, advising with the bureau on doubtful questions.

#### **FIREPROOF BOOTH REQUIRED.**

The rules of the underwriters and the Industrial Commission, as well as ordinary precaution, prescribe that a motion-picture machine must be housed in a fireproof booth, constructed of metal, asbestos, or concrete. Inasmuch as most school assembly rooms can not spare floor space for such a purpose, it has been found expedient for that and other reasons to place the booth against the rear wall, partly suspended from the ceiling. Specifications of a booth which has received the O. K. of the Industrial Commission are furnished by the bureau. Often the booth can be built by the class in manual training.

#### **SLIDES AND FILMS IN SCHOOLS v. IN COMMUNITY MEETINGS.**

It must here be repeated that slides and films are sent out by the bureau in response to two needs—one the strictly pedagogical need for classroom instruction, and the other to meet the less technical, yet none the less educational purpose of instructing and edifying the whole people of the community through lecture sets of slides and through films on travel and welfare subjects, etc. We are fast giving up the notion that motion pictures mean nothing but "movies," and have gotten away from the old idea of a "magic-lantern show"; and we are now realizing that both have immense

educational possibilities. In order to accomplish their greatest good in either classroom or assembly hall, however, they must be handled and discussed and explained by one who has made a careful and thorough study of their contents. The class approach to the study of a topic through the aid of slides or motion-picture films should be essentially the same as a laboratory exercise in science. The exercise should have for its aim the teaching of a certain truth or truths. Particular observations should be made by the pupil, and clearly and accurately reported by him. Some conclusion or generalization should follow. In other words, visual instruction should be reduced to a pedagogical method. These statements refer to the use of lantern slides for formal classroom instructions or of pictures in any form for individual study, rather than to their use as a means of general community instruction or edification.

The bureau has prepared, with the cooperation of many of the university faculty, manuscript readings and descriptive notes to accompany the slides and films. These readings and notes and film assemblies are stenciled and printed in quantities sufficient to provide every borrower with a full series of manuscripts, covering all the slide sets and films scheduled for his use throughout the year. The readings are provided with copious library references and are intended merely as a basis for study and preparation on the part of the one who uses the slides or gives the illustrated lecture. He is urged to draw abundantly upon the local library for additional help, the package library department of the university extension division, the State Free Library Commission, and upon governmental departments for bulletins, reports, etc. The whole idea, in short, may be summed up in the following extract from a letter of advice to borrowers, sent out by the bureau:

Have the lectures given in your school or social center or other individual place of meeting, resorting to public halls or theaters only when absolutely necessary.

Select carefully, after looking over the whole school and community, the person best fitted by natural endowment and by interest in the subject to handle and deliver the lecture and discuss the films. The principal of the school will miss a great opportunity if he does not engage the interest and cooperation of a number of people, both in the school and in the community at large in this direction. To illustrate: There is doubtless some one person in your town who is more or less an authority on dairy cattle and dairying. Let him have the manuscript on that subject; urge him to collect all material possible (every manuscript has a list of references at the close), then study the lecture, assimilate it, work in his own experiences, discuss it with his neighbors, etc., so that finally he will speak with authority, and will not simply read in a parrotlike way a lecture somebody else has written. This suggestion applies most vitally to all the lectures in the series. You can soon have half the community not only going to school but contributing in no small measure to the educational advancement of its citizens.

And why should not the superintendent or principal of the school frequently call in other scholars of the community to give the school and its patrons the benefit of their studies and experiences? When the lecture on "American Art and Artists" is to be given, who better to handle it than the club woman who has studied the subject and who has a real enthusiasm for art? What more fitting than to invite a person who has visited Venice to give that lecture, even though he may not be a professional lecturer? There is no better way to develop and establish the community spirit. The young and old will assemble themselves together to learn and to commune with one another. The results where this plan has been followed, instead of one person's attempting to read in a necessarily indifferent way one lecture manuscript after another, have been more than gratifying. It is a working scheme that should be practiced wherever the service is received. But it is not a scheme that can be made automatic. Its direction calls for a man or woman or committee with a vision, and with executive ability of a high order, and with willingness to devote time and enthusiasm and unrelenting effort to necessary details.

### RURAL EXTENSION SERVICE.

In order to meet the increasing demand made by the high schools, the county superintendents, the county agricultural agents, and the State graded schools for opportunities to use educational slides and films in neighboring country schools, every borrower, whether on the routing circuits or receiving special service, is permitted to retain possession of a package for at least one week, and longer if needed. This makes it possible for members of the high-school teaching force to cooperate in extending this service to rural schools and communities in a most effective way. The college of agriculture of the university has assisted the bureau in collecting and organizing sets of slides and films of peculiar interest and value to rural communities. This phase of university extension work is becoming more and more active.

In order to receive the slide and film service from this bureau it is necessary for all borrowers to fill out and sign an application form. This form contains in detail the rules and conditions under which the service may be enjoyed, as follows:

1. As the service is free, supported by the State, its use in the community must be free—not commercialized in any way. Some exceptions are made, as when it is desired to raise the necessary funds to carry on the service to purchase a machine, to raise money for welfare work, as playground apparatus, etc.; but each case of that sort is made the subject of a special application, and is dealt with on its own merits.

2. Borrowers are required to pay transportation charges.

3. The slide and film service must not be made a feature of a local motion-picture show, but must be independent of all alliances or combinations.

4. *Routing or circuit service* will be extended only to schools equipped to use it; i. e., this type of service can not be used regularly in a motion-picture theater.

5. An annual registration fee of \$7 for either slide or film service, and \$12 for both films and slides is payable in advance. This fee is not to be regarded as a rental charge, but is to pay incidental expenses of the service. The fee

entitles the subscriber to unlimited borrowing for one year, not only on the circuits selected, but direct from the bureau, and at any time throughout the 12 months. Those not desiring circuit service will pay \$5 annually for slides or films, or \$7 for both.

6. Borrowers are required to pay cost of repair or replacement of slides broken or lost, or films lost or damaged, while in their possession.

7. Shipment must be made promptly on dates set forth in shipping schedule. Expense due to failure to make correct shipment, and on time, will be charged to the borrower responsible for the error.

8. Detailed report on the condition of slides and films when received and when forwarded is to be mailed to the bureau *when shipment is made*. When proper report is not made, any breakage or film damage reported by the next borrower, if on circuit, will be charged to the one failing to report.

The bureau offers to the schools and communities of the State other material for use in illustrative teaching, including—

(a) Photographic prints, post cards, stereoscopic views, educational pictures clipped from magazines, etc.

(b) Cabinet collections.—There is a large amount of material of this kind, not bulky or difficult to prepare and transport, but more or less inaccessible to the average teacher. Through the cooperation of the department of economic entomology, a number of cases of injurious insects have been placed in service. These sets are sent out on special application.

(c) Microscope slides.—Sets of microscope slides on botany and for use in the study of human anatomy are now ready.

(d) Wall pictures.—To use in art exhibits for the study of school-room and home adornment.

In order to meet a constantly growing demand for wholesome films of a more popular character for use in community gatherings—films which it is not the policy of the extension division to buy (most of them, indeed, not purchasable at any price)—arrangements have been entered into with leading producers whereby schools can secure through the bureau some of the best films—five or six reel “features”—as well as certain slide sets at prices considerably below what would have to be paid if obtained direct from the producers. A special list of such films and slides is furnished upon application.

A room in the university extension building has been fitted up and equipped with stereopticons, motion-picture machines, and projection apparatus of many of the leading makes. Teachers and committees are invited to come to Madison at any time to inspect these machines side by side and compare their respective merits with one another. It is also possible at the same time to become better acquainted with the visual instruction plans and purposes of the university extension division as well as with the stock of material.



DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

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FOREIGN CRITICISM OF AMERICAN  
EDUCATION

By

W. J. OSBURN

Of the Department of Education of the State of Wisconsin



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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, D. C., October 6, 1920.*

SIR: From time to time, and particularly within the last few decades, a large number of educators and intelligent critics of education from other countries have visited and studied our American schools, usually for the purpose of gaining such information and ideas as would be helpful to them in the improvement of the schools of their country. Many of these have made reports to their home governments containing much valuable criticism of our schools from their points of view. The manuscript transmitted herewith for publication as a bulletin of the Bureau of Education consists of extracts from these reports so organized and arranged as to enable the American reader to get the largest possible value from them at a minimum of time and effort. The comment on the criticism by the author of the manuscript, Mr. W. J. Osburn, of the Department of Education of the State of Wisconsin, gives a fair and helpful interpretation of these criticisms.

It is always good to be able to see ourselves as others see us. The criticisms and excerpts from the reports of these intelligent observers of American schools and educational processes will be especially helpful at this time when all our educational theories and practices are undergoing severe criticism at home and we are trying to reconstruct them to meet the new and growing needs of our democratic society. This bulletin will, I feel sure, constitute a valuable contribution to our literature on education.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.



# FOREIGN CRITICISM OF AMERICAN EDUCATION.

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## INTRODUCTION.

The late war has emphasized the fact that the United States is playing, and will continue to play, a leading part in the development of democratic ideals. From a small beginning in 1776, the Nation has grown to vast dimensions. At first the little democracy, hemmed in by two great oceans and busy with the conquest of the wilderness, had little connection with the remainder of the world. Entangling alliances with Europe were avoided, and our country was left to work out its own destiny. Our experience in self-government appealed strongly, however, to the oppressed peoples of Europe, and a constant stream of immigrants, which represented the most vital elements of European life and civilization, kept pouring in upon our shores. As the struggle for existence became less acute, as means of transportation were improved and as new inventions were discovered, the isolation of America diminished. The culmination of the process came during the war with Germany. Henceforth the United States, willingly or unwillingly, must take its place as a leader in the forward movement of the world, and particularly in the social reorganization which the war has made necessary. Such a task requires an accurate balance between social stability and social progress.

Social stability is the result of cherishing old ideals, while social progress can come only through a diversity of viewpoint. Truth is many-sided. No one nation can see all sides of it, but a combination of judgments from representatives of several countries contributes greatly to clearness of vision. It is, therefore, desirable and advantageous to know what other nations think of us. The purpose of this study is to gather this information with reference to our educational system.

In such a task certain limitations are necessarily involved. In the first place, the evidence is based largely upon individual opinions, and it is only natural that many of our critics, unfamiliar as they are with the details of our national life, are wrong in the inferences which they draw. None of them can possibly understand us thoroughly, and most of them base their judgments upon what they saw during relatively short visits in this country which were of necessity restricted to local and sometimes atypical areas. Nothing approach-

ing a scientific survey of conditions as they exist here has ever been attempted by foreign visitors.

On the other hand, while it is true that individual opinions will vary, the central tendencies of two hundred such observers is likely to be near the truth. The local character of the observations is largely counterbalanced by the fact that the underlying ideals and methods of procedure have been fairly constant everywhere. Thus while few of the visitors got as far west as the Pacific States, the localities which they did visit are in a large measure representative of the country as a whole. The quotations have been restricted so as to include only the opinions of highly qualified men and women who were occupying important positions as educators in their own countries. Many of them were representatives delegated by their governments to study our educational system. The most extensive body of criticism is the Report of the Mosely Education Commission, which was sent from England with instructions to find out to what extent our commercial prosperity has been due to our educational system. Much of the criticism of our universities comes from French university professors who have done exchange work in this country, while a particularly valuable type of criticism is given by three men who came as immigrants and have remained in the United States as educators.

While the documents which have been studied are confined for the most part to those produced by French, English, and German observers, it should be remembered that the ideals of these three countries are typical to a large degree of those of the rest of the western world.

An effort has been made to give the background upon which the observers based their criticisms. This has seemed advisable on the theory that the criticism given would naturally center around those features of our system which were markedly better or at least markedly different from the corresponding features in the native country of the person giving the observations.

An effort has also been made to show the growth of our system during the period since 1850 as it is reflected in the criticism. A bibliography of works cited in the text is appended to this bulletin.



## Chapter I.

### AMERICAN EDUCATIONAL PHILOSOPHY.

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The educational system of any nation is closely related to the ideals of that nation. Therefore, all who would understand American education must study American ideals; and all criticism of American education must be considered in the light, both of American ideals and of the ideals of the nation which is represented in the criticism. The ideals upon which the American system of education rests are well portrayed in the work of De Tocqueville, provided some allowances are made for the changes which have occurred since his time. The keynote of his criticism is the assumption that all men are created equal in every respect. While this assumption is unwarranted, his work is valuable because he enumerates certain ideals of democracy which he proceeds to explain in terms of his fundamental thesis. Furthermore, this principle of equality, at least in its political sense is still looked upon as fundamental in democratic nations. De Tocqueville ([24]<sup>1</sup> Vol. II, Chapter I) summarizes American philosophy as follows:

To evade the bondage of system and habit, of family maxims, class opinions, and to some degree of national prejudices. To accept tradition only as a means of information and existing facts only as a lesson to be used in doing otherwise and doing better. To seek the reason of things for oneself and in oneself alone; to tend to results without being bound to means, and to aim at substance through form.

According to De Tocqueville, American belief in equality leads to a lack of regard for ancestors, since ancestral opinions and methods of procedure are based upon an intelligence and knowledge which is in no way superior to that possessed by those who belong to the present generation. The idea of equality leads also to better acquaintance among men since social barriers do not exist. Each man feels that his own opinion is as good as that of his neighbor, and each man tends to decide things for himself. Expert authority is looked upon with disfavor. On the other hand, the span of human life is so short and time is so fleeting that no one man can think out all things for himself. The best that he can do is to assume most of the things which he believes and build his own thought system

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<sup>1</sup> The numbers in brackets throughout the text refer to the numbered items of the bibliography.

upon that basis. It thus happens that amid the utmost diversity which is to be found in the United States there are certain fundamental beliefs which are present in every village and hamlet, and in the cabin of every pioneer. Like-mindedness and individualism exist side by side, the one leading toward stability and the other toward change. To establish a proper balance between these two forces is the problem of government, as it exists in every form of human society. If it is assumed that men are not equal politically, it follows that the small social class which is looked upon as the best and the fittest must rule while the majority of the people are compelled, by force or indoctrination, to follow. This idea was held by many of the colonists at the time of the formation of the Union. The people who lived near the Atlantic seaboard in the early days were suspicious of popular government while the pioneers who had pressed inward were generally in favor of a more popular form of control. The present Constitution represents a compromise between these two opposing points of view. The principle of equality emerged slowly and it is only in very recent times that political equality even has been fully recognized.

The democratic conception of government which finally prevailed was based upon the principle of equality. It places the sovereignty in the hands of the majority. It is asserted that there is more intelligence in a number of men united than in any single individual and that the number of legislators and voters is more important than their quality. It also follows that the interests of the many are to be preferred to those of a few. All of this is diametrically opposed to the guiding principles of despotic societies. As a natural result we find marked evidences of lack of understanding and sympathy in most of the criticisms coming from autocratic countries like Germany, while critics from democratic England understand us quite well.

A further outgrowth of the doctrine of equality, according to De Tocqueville, is the conception of the "indefinite perfectibility of man." In aristocracies the essential characteristic is the idea of class. The limits to which any individual may improve are definitely fixed within the social stratum of which he is a member. Within those limits he can rise but not beyond them. In democratic societies, in theory at least, no limit of improvement is recognized. No condition is looked upon as a final state. There is always a possibility of further activity and further growth. Whatever is done is looked upon only as a makeshift which shall serve its purpose only until a better solution of the problem is discovered. This doctrine likewise met with strong opposition in the early days. Politically, the struggle centered around the question of the interpretation of the

Constitution. In this conflict the forces favoring stability prevailed to such an extent that it is still quite difficult to amend the Constitution. The tendency, however, has been in general toward the policy of loose constructionism.

De Tocqueville was also strongly impressed with the rather pronounced tendency of America toward mediocrity. He is inclined to attribute the cause of this to our boundless economic opportunity. He thinks that supernormal achievement is largely the result of meditation and leisure, but the economic opportunity is so great that few Americans have time to meditate long enough to get interested in the pursuit of truth for its own sake. In the practical application of truth and in the discovery of principles of immediate practical utility the Americans excel. Hence we find great American inventors, but almost no great scholars, poets, artists, or authors.

Seventy years after De Tocqueville's work was published, Hugo Münsterberg wrote a statement of another ideal which is back of the American Constitution. He says ([68], p. 457) :

The end of all social striving [in America] is the happiness of individuals. That is positivism—reality based upon that which is.

Contrasting this with idealism based upon what *ought* to be, he writes:

The first philosophy assumes that the purpose of man is to be pleased, the second, that his purpose is to do his duty. Knowledge is not for the pleasure of individuals but for the realization of ideals.

He calls attention to the fact that American ideals had their origin in the philosophy of enlightenment which centered in France during the early part of the eighteenth century. He believes that the meaning of life lies not in the greatest pleasure for the greatest number but in the realization of eternal ideals. What Münsterberg calls the greatest pleasure for the greatest number is evidently the same thing which De Tocqueville calls the "love of easy access and present enjoyment," and which he classes as a secondary characteristic due to environment. Instances are plentiful which go to show that the American people are capable of sacrificing their love of present enjoyment and can achieve notable success in the realization of ideals. The conflict between the two viewpoints, however, is none the less a real one and is the key to one phase of American education which will be considered further in later chapters.

It is noticeable that Münsterberg says nothing about equality. This is due partly to the fact that the term is foreign to German thought and partly to the fact that the progress of science since De Tocqueville's day has proved that men are not created equal. It has become necessary, therefore, to state our philosophy in more

modern terms. The best effort toward such a statement by a foreign critic is that of Shadwell ([83], p. 379): "The fundamental principle of national education in America is equality of opportunity and grows out of the American democratic spirit." He thinks that the school is the chief stronghold and perhaps the last hope of this spirit because, "the home and church are visibly disintegrating and the State \* \* \* well—no one pretends that public life any more than private is moving toward the ideal of democracy." The truth is, of course, that absolute equality of opportunity is almost as impossible as the older doctrine of equality. Yet the American people stand for it and strive toward it as an ideal. Shadwell believes that they look to the school with faith and hope tempered with no little misgiving. Thus the school comes to be identified with democracy, and it is here that we find the cause of the keen interest in education, which is the thing that is commented upon by practically every foreigner who visits our country.

The interest of the American people in education is such a prominent element in the criticism of so great a number of foreign critics that it is worth while to see what evidence they produce to show that America has such an interest, and has it to such an unusual degree. The critics themselves seem to consider this point important and several of them have gone into the matter in some detail. The most important type of evidence presented is the amount of money spent upon education, particularly with reference to the provision of buildings and equipment. According to our critics, America has the finest and best-equipped schoolhouses in the world. The following is one of the more conservative statements as given by Wallage ([88], p. 106):

Everywhere one finds splendidly built and splendidly planned schoolhouses. Each city, yes, each village—even the smallest in the land—vies with its neighbors in the erection of up-to-date structures, and one seeks to surpass the other in new and more practical reforms. They gladly pay right large costs and without a murmur give to education more than any other country in the world \* \* \*. It is, in general, a striking characteristic of the American people to appropriate splendid sums of money for the erection and maintenance of schoolhouses and school equipment.

Such a statement becomes more significant when we remember that Wallage is a German. Germany has had better school buildings than either England or France, and the Germans have been educated to believe that their country excels in every respect. Such a complimentary criticism is rather unusual on the part of a German critic.

Another phase of American educational life which has been pointed to as indicative of American belief and interest in education is the practice of giving large sums for the endowment of educational

institutions. This type of activity seemed to appeal particularly to those who visited this country during the eighties and nineties. These critics argue that wealthy men would not give their money to endow schools if they did not thoroughly believe in the value of education. That business men believe in the work of the schools is shown in the fact that they are anxious to get university and high-school men to take positions with them. The day of the self-made man is passing, and the college and university graduates are in great demand. The business man feels that the schools are giving a training which helps to prepare his employees for their work.

Such belief in education is not confined to those who are wealthy. It shows itself as a general tendency in the remarkable fact that local communities are glad to vote generous taxes for school support. More remarkable still is the fact that men who own property and have no children are, nevertheless, willing to pay taxes in order to educate the children of other people. To many of our critics the free school system, especially the free secondary schools and universities based upon local taxation imposed by the people upon themselves, seem nothing less than a marvel. They argue that such a practice can be explained only upon the basis of a profound belief of all the people in the value of education.<sup>2</sup>

Our visitors are also strongly impressed by the sacrifices which are made by both parents and pupils in order that the latter may remain in school. The idea of parents willingly denying themselves the luxuries of life in order to provide for the education of their children is to them an enigma. Still more strange to them is the fact that boys and even girls will and can "work their way" while in school. Part of their bewilderment is of course due to the fact that the caste system is largely missing in this country. This makes it possible for boys and girls to wait upon tables, wash windows, and perform the types of unskilled labor which is performed in Europe only by the servant class and still retain the respect and even the admiration of their fellow students. The foreigners can explain this only in terms of a popular belief in education and the general principle of equality. Such a thing is unheard of in Europe, and therefore it is argued that it must be due to principles and beliefs which are unique. The interest of the young in education is shown also by the tremendous increase of attendance at high schools of all kinds and in the marked growth in the number of such institutions. The large attendance at evening schools is also mentioned in this connection.

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<sup>2</sup> It is doubtless true that many of our visitors have not realized the long struggle which was necessary in order to bring this condition about. The policy of free education, particularly on the secondary level, has met with strong opposition. But even so, the battle has been won, and in this respect America is in advance of the nations of Europe.

Evidence of the general belief in education is also found in the attitude of the teachers. They are generally enthusiastic and industrious in everything which leads toward improvement. A limited amount of the criticism deals with our teachers' associations. For the most part it is favorable. Barneaud ([3], p. 21) says:

The work in the association [N. E. A.] presents an interest more lively because membership in it is optional only and because its work is not at all possible in any other country.

Fitch ([31], p. 104) says:

The American National Educational Association is the British Association raised to the third or fourth power.

The strong influence of the American teachers' organizations upon school procedure and upon the public sentiment is thought to be due to the unusual educational interest in education of both teachers and general public.

A further example of such an interest is said to be furnished by the amount and character of our educational literature.<sup>3</sup>

The attendance of American teachers at summer schools is also a source of wonder in this connection. They consider the American teacher to be thoroughly awake and alive to every means of self-improvement. Our visitors also note with much approval the evidences of educational interest which are shown in many of our daily papers. The existence of educational departments in such papers is looked upon as indubitable evidence of the general interest in education on the part of the readers.

The American people are not only interested in education, but they are interested in the public schools. The critics are impressed by the frequency with which parents visit the schools, and by the number of parent-teachers' associations. Such is the view of the majority of the observers. But there is a minority which is inclined to take an opposite point of view.

The criticism of Langlois ([51], p. 128 and ff.) is interesting in this connection. While he recognizes the fact that Americans spend a great deal of money upon education, he doubts that this is first-class evidence of their interest. He points out that while America has some splendid schoolhouses, she also has many, particularly in the rural districts—

which are far from satisfying the most modest requirements. Wealthy men give great sums to endow and build school palaces, but the teachers are poorly paid. Consequently, there is a shortage of teachers and many of the finest buildings are badly overcrowded.

If the wealthy men were really interested in education, he thinks, they would spend their money where it is most needed.

<sup>3</sup> See also Chap. III, p. 61.

Having denied that the great educational endowments are due to the interest of the donors in education he involves a theory of his own to explain their motive in the matter. He thinks that America, being a young nation, is passing through a stage of development which Europe passed through during the latter part of the Middle Ages. Then great amounts were given to endow the various religious and educational foundations, and the motive was to provide for the future welfare of the donor. So in America in a similar stage of development we find large gifts which serve to construct a monument to the donor so that his name will be known and remembered by future generations.

He sees a similar parallelism from also another point of view. The time when the educational foundations of the Middle Ages were being established was also the time of beggar students who begged and worked for their living; so to-day in America, in the most richly endowed universities, poor students are compelled to work their way.

University pauperism (among students) is not so much a sign of popular enthusiasm for science as the mark of a defective and barbarous education. For a student to work his way may be an honor to him, but not to the system which forces him to do it. The universities should provide scholarships for all such students (p. 137).

The inference seems to be that the wealthy would provide such scholarships if they were really interested in education. He concludes that the practice of endowing schools is due partly to a desire on the part of wealthy men to imitate the nobility of Europe, partly to personal vanity, and mostly to obscure social forces which come to the surface and become the symptoms of a certain stage of social growth through which each nation must pass. He thinks that a day will come when the practice of endowing schools and the presence of pauper students will be only memory in America.

Such a point of view is of interest, coming as it does from a man of such high standing at Langlois, but it is hardly fit evidence for the case in point. It is rather fanciful to compare American civilization with that of medieval Europe in such a manner. Some endowments may have been due partly to personal vanity, but it is very doubtful if any of them are due to a desire to imitate the nobility of Europe. But even with these admissions, there is nothing to show that our wealthy men have not been interested in education. The presence of poor students is not good evidence, because many of these students prefer to work their way, and it may even be best for them to do so. In order to prove the point it would also be necessary to show that the wealthy men are unwilling to help such students. Langlois has clearly failed to understand the spirit of America in this connection. America believes that all who are really worthy of a higher education will possess the initiative and

energy to get it in spite of financial handicaps. In recent times, however, the unequal distribution of wealth and the rise in the cost of living are developing a new side to the question. The United States must soon face the question as to whether as a nation it can afford to allow highly intelligent young people to work under such a handicap. There is a growing feeling that such a policy involves a dangerous waste in the country's most precious resources. The day is surely approaching when worthy students will be educated at public expense.

Several critics call attention to what seems to be a curious anomaly in connection with American interest in education. Grasby ([37], p. 23) says:

It is odd, I think, that \* \* \* in the National City, grand in its proportions, with its marble edifices, its palatial and sumptuous offices, unsurpassed by those of any capital in the world, the just pride of over 60 millions of the freest people under the sun \* \* \* that the Bureau of Education is permitted to be the worst accommodated of any Government department.

In regard to our lack of a national university, he says:

To disregard the fervent wishes and wise admonitions of noble men, while employing sculptors' aid to perpetuate their memories, to march in triumphal procession and listen to fervid orations in honor of their doings on the Fourth of July, and for the remaining 364 days of the year pay no heed to their advice is so unlike the usual practical wisdom of the American people that such an exception is the more remarkable.

Here again there is a lack of understanding on the part of the critic. The real cause of the condition which Grasby points out is the fear of bureaucracy and of domination by central authority. The American people are interested in education, but not in centralized control.

The conclusion growing out of the combined criticisms seems to be that the American people have a very general and very unusual interest in education, but that it manifests itself unevenly and in a manner that is unwise, or at least inequitable. The reason for this lack of equity is not suggested. Possibly it may be explained by the fact that the American people are not yet fully conscious of their educational philosophy. They have strong beliefs, but these beliefs have not yet reached the stage of rationalization. Public sentiment is not yet fully awakened, particularly in the rural districts. Doubtless there are still remnants of the *laissez faire* policy in some places. On the whole, America believes in equality of educational opportunity, but many of our people do not yet understand the full implications of that term. Interest in education is often present, while the knowledge of what to do and how to do it is still lacking. There is a more or less blind impulse to do the right thing, but rational aims and conscious guiding principles are needed.



American educational procedure is still in the making. It has many imperfections, but it is free to grow and improve. With growth in centralized control and improved means of communication, injustice in educational affairs will gradually disappear.

Assuming the existence of a profound interest in education, what are the causes which lie back of it? Langlois ([51], p. 99) suggests the following:

(1) A general realization that a people who govern themselves must be educated.

(2) The necessity of education in the assimilation of foreign people.

(3) The idea that each person has the right to make the most of himself.

(4) The effort to prevent the rise of a caste system.

Hausknecht ([42], p. 1) in this connection mentions, (5) "The unbounded possibilities which each individual in America possesses." Barclay, in the Mosely Report ([66], p. 398) gives, (6) "The desire to insure adaptability."

Buisson ([10], p. 1) mentions, (7) "The influence of Protestantism."

All of these causes fit in well with the outlines of American philosophy as given earlier in this chapter. The doctrine of equality involves universal suffrage, which in turn necessitates a general education for all, if it is to be safe. While the doctrine of individual perfectibility calls for provisions that will enable each person to make the most out of his opportunities, the "tendency to seek the reason of things in one's self and for one's self alone," is the essence of Protestantism.

These causes are typical of those given by other critics and they imply all that is mentioned in this connection. Ravenhill ([72], p. 407) prefers to state the first one in terms of general welfare, which agrees more closely with the doctrine of positivism. The same critic states the third cause in the more modern term of "self-realization." Schmidhofer ([82], p. 46) summarizes American interest in education by saying:

The conviction has developed that for the schools and the youth the best is just good enough, while in many localities of the Old World the idea prevails that for the schools the worst is too good.

As a natural result of the American interest and belief in education, several critics notice an unusual type of energy and enterprise. Rathbone, in the Mosely Report ([66], p. 256), says:

I was much struck with the energy, enterprise, boundless hopefulness, consciousness of power, resourcefulness, adaptability, and above all rapidity and decision of the people with which they endeavor to supply deficiencies and meet modern requirements.

In comparing the education of America with that of Germany and England, Sadler ([78], p. 457) says:

There is a wonderful keenness and "go" in American education. Germany can not rival America in vigor and enthusiasm. It is the atmosphere of American life which permeates American schools and makes men and boys more adaptable than they are here (in England). We get into grooves more than the Americans do and stick there. \* \* \* The German has methodical perseverance, scientific precision, and patient forethought; the American, unrelenting activity, brilliant dash, and intellectual ingenuity.

Some of our critics think that we have too much energy. They see a tendency toward hurrying which is objectionable. Mark ([65], p. 258) believes that American educators should infuse all the pulse-steadying influences which they command into the schools as an offset to the restless individuality. Papillon ([66], p. 246) sees an American inventiveness and energy which England does not possess, but calls attention to the danger of hurry and overpressure.

Rowley ([66], p. 345) thinks that solid education and workmanship are suffering from the same cause.

As a result, the products in the arts and crafts lack real originality in design, in ornament, in anything where the brain and hand and higher emotions work together. \* \* \* Raw utility comes into glaring evidence.

All of this is but another evidence of the American tendency toward achievement rather than toward meditation. Energy and enterprise are invaluable, but like all other good things they may be overdone. There is always danger that what is gained in speed may be lost in power. One problem of American education is to guard against a misuse of the tremendous power which resides in our people.

Like all other forces it must be controlled and guided if it is to be useful.

#### ASSIMILATING THE IMMIGRANT.

One of the most remarkable phases of our education as shown in the criticisms is our success in assimilating the immigrant. All agree that the schools are the great agencies which are achieving this wonderful result. The German critic is particularly interested in this part of our educational achievement. In general the German would much prefer to have the German immigrant keep up his mother tongue and preserve his home traditions. He seems to lament and almost envy our success in the Americanization of the German. His criticism is almost a complaint. Thus Walther ([89] p. 22), who is particularly unsympathetic toward American ideals, says:

It is wonderful that in spite of all the different races which the immigrants represent they are in a short time welded together in the great melting pot into a

unified mass, and very shortly feel themselves to be free Americans. In a correspondingly short time they also come to look upon the English language as their mother tongue.

Other German critics seem to feel that this process can not be real. Leobner ([58], p. 15) says:

All the hosts of polyglot immigrants become welded in a very short time into a people which is, at least outwardly, homogeneous.

Griebisch ([39], p. 598) wonders if a national consciousness can really be built up in such a conglomerate of races. He is inclined to think that such a result is possible because—

America offers freedom in its business, social, political, and religious sense to the immigrants from every nation. The key to the system is a free people in a free country.

Klemm([48], p. 40) thinks that the American emphasis on education as nationalization is due to the presence of the immigrants. He believes that the—

Anglo-Americans were not at first conscious of this task. For 200 years the colonists neglected the schools \* \* \*. Only in the middle of the nineteenth century did they recognize the part which the schools were to play in the assimilating process \* \* \*. The social equality of all the pupils, rich and poor, commended itself to the immigrants, who had been compelled to suffer from the effects of European class prejudice. In short, the schools won the confidence of the immigrant and kept it.

The nationalization process assumes still greater importance when we recall with Buisson ([10], p. 4) that the original Anglo-Saxon stock is disappearing. Thus, if our ideals are to be preserved the task of seeing that this is done will fall upon the children of the immigrant.

Buisson, with many others, calls attention to the fact that all of our hopes of education as nationalization are endangered by the disturbing influence of politics. His conclusions are that more and more money must be spent upon education if our ideals are to survive

By educating the new generations in the best manner, by giving everywhere the education which is suited to free men to children of the lowest social strata, they will little by little lessen the number of intriguers and dupes. This idea is one form of American patriotism.

On page 15 attention was called to the fact that American ideals are in the process of emerging upon the level of nationalization. Further evidence of this fact appears in connection with the criticism concerning citizenship and nationalization. Griebisch ([39], p. 600) says:

The Americans are in development at the stage of a grown young man in the fullness of his strength, who does not yet know how to use this strength with measure and discretion, who often, in spite of the best purposes, overshoots the mark and throws to the winds the advice of older and more discreet persons. All the powers of the Nation must find a use which will serve the general

welfare. National pride must unite with a consideration of the value of other nations and not degenerate, as is so frequently the case, into rudeness, prejudice, injustice, and superficiality. To offset these things is the chief duty of the American school. The school must make the people capable of acting in accordance with their claim that they have a government of the people, by the people, and for the people. The individual must have a clear judgment in order to participate in the government. He must learn to place his powers in the service of society.

In similar vein, Shadwell ([83], p. 383) says:

I do not find evidence of any clear or general conception of what education should be in the United States beyond the general principle of equality of opportunity. \* \* \* There is a lack of uniformity even in the provision of free education. (The length of the school sessions varies so that some children get better opportunities than others.) Beyond this the only general conception is a vague idea that school is necessary for producing good American citizens.

It is doubtless true that American education has shown some "adolescent" characteristics, and doubtless some national ideals are still almost entirely in the subconscious stage. The fact of most transcendent importance is that growth is taking place and that the avenues for growth are open. The growth of our pedagogical literature and of the great educational and popular self-consciousness is necessarily slow and is still far from complete. Such growth in regard to the ideals of citizenship and nationalization has doubtless been greatly accelerated by the late war. Hippeau pointed out in 1870 ([44], p. 3):

Before a citizen puts his talents into the service of his country, the country on its part must furnish to the children the means of acquiring the greatest amount of talents and aptitudes in order to be able to accomplish this duty. The American Constitution, seeing in public education a great national interest, has taken care to assure to the central government the right of protection and guardianship over the schools by means of funds for their maintenance.\* Public education conforms to democratic principles to which everything is subordinated in this most free country in the world. Its purpose is training in citizenship. The minimum of education can not be less than the instruction which every man must possess in order to fulfill his duties toward society and to the State as juryman, witness, and citizen \* \* \* ; intelligent participation in everything which is of interest in municipal or national affairs and the ability to acquit himself in the obligations which are imposed upon one who possesses a portion of the national sovereignty.

Laveleye ([56], p. 337) says:

The American believes that the safety of society and the future of democracy depends upon the diffusion of instruction in all the ranks of the people.

The English critics note the same tendency and point out the fact that America has abandoned the older *laissez-faire* policy. Sadler ([78], p. 218) points out the early conflict between the New England

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\* The American Constitution does not provide a school fund. Such funds have been established by congressional enactments.

educational policy and the Virginia policy. That conflict terminated in the victory for the former. Therefore those who study American education must look to New England for the sources of the movement.

### EXTENT OF EDUCATION.

A great amount of comment centers around the fact that education has been extended to all. There is no greater attraction for our visitors than the sight of the children of the "rich and poor sitting on the same school benches."

The cause of such an unheard-of practice is clearly due, at least in part, to the constantly growing feeling that universal education is necessary to the perpetuation of the Nation.

Some critics, however, think that universal education has its drawbacks. Brereton ([8], p. 29) believes that equality of opportunity may possibly become undesirable in that it does not provide sufficiently for the elimination of the unfit.

Should America persist in her splendid endeavor to give each child that stays in her schools a general education, the question naturally arises, Is she not in the long run likely to raise up that undesirable hybrid that other nations have produced, \* \* \* a literary proletariat?

This criticism was written at a time when the openings for educated people in France were rather restricted, particularly in commerce and industry, and Brereton fears that the schools may produce more liberally educated people than are needed in life outside of the school. One can hardly imagine such a condition in the United States.

Some of the German critics see a danger of mediocrity in this connection. Thus Dunker ([29], p. 42) says:

The Americans become patriotic citizens and captains of industry, but they must call on the Germans to do the skilled workmanship.

In another place ([29], p. 35) he intimates that the American type of universal education produces a sort of superficiality:

There is a devout optimism, harmless diletantism, and generous good will, but a lack of solidarity of detail. The German ideal is higher and therefore aristocratic, since only a few can attain it.

Böttger, another German ([5], p. 21), says:

In America they look upon the raising of the ability of the average man as their aim, while in Germany the main purpose is to enable the best to come to a full development. The American system involves unsuspected dangers. For example, if the measure of requirements is set too low it will favor the invasion of the learned callings by those who are less able.

These two criticisms emphasize a fundamental difference between the ideals of democracy and those of aristocracy. Both recognize

that growth and progress are not to be had without a price. They must always be paid for in terms of sacrifice. Disagreement, however, arises as to who should make the sacrifice. America considers education as the inalienable right of every child. Germany prefers the higher education of the few only. In America the original ideal was that of equality—a doctrine which is invariably opposed by those whose ideals are an outgrowth of the class system. This is an old and fundamental difference of opinion, and will in all probability persist for an indefinite time to come. Stated in the terms of modern science the question becomes: Shall a nation sacrifice the interests of the lower fourths of the intelligence distribution to the interests of the upper quartile, or should the upper and lower portions each be neglected for the welfare of the larger middle portion? Democracy prefers the welfare of the greatest number even at the risk of superficiality and mediocrity. This is not to admit that leadership and genius are impossible in a democracy. It only means that they may be neglected. While it is true that America did call upon Germany for skilled workmen and that our talented pupils have been neglected, this is only an evidence of the fact that the interests of the majority must take precedence over those of the minority in point of time. As soon as the majority are taken care of, attention will turn toward the needs and rights of the minority. In fact, there are evidences at hand to show that this adjustment is actually occurring and that the Americans are becoming increasingly conscious of the existence and needs of both the subnormal and the supernormal. Democracy, and the education which makes it possible, are worth all that they cost. America is right in insisting upon a free liberal education for all, since each person is to be a citizen and a voter.

#### INDIVIDUALISM OF AMERICA.

Thus far the criticism of American education has dealt mainly with the point of view of social welfare. But there is another side. America is a land of strong individualism. This has resulted partly from the doctrine of equality and partly from the environment. The first has already been discussed (p. 2 ff.). As to the second, it is evident that the pioneer who lives far from the haunts of other men must develop strongly those qualities which lead to survival when such survival depends largely upon one's own initiative, resourcefulness, and courage. Quick decision and resolute action often won the day when the pioneer was compelled to fight for his life against savage animals and men. It was natural, therefore, that he should wish his children to develop the qualities that were of

such signal service to him. This ideal soon spread from the home to the school. It has been one of the first things to attract the attention of the visitors from Europe. Mark ([63], p. 27) says:

The key word of the new aim is to train the individual will to recognize and respond sympathetically to the larger will of society. This, in a word, is the doctrine of individualism as accepted by the leading American educators.

Such will training results from the formation of correct habits. If the people are to be capable of self-direction when free to act, situations must be provided in which the children may practice free choice. Initiative must be stimulated, the personality of the child must be respected, and freedom must be accorded to him. If he misuses his freedom he must suffer the consequences. Some of the critics understand this situation. Thus Passy ([71], p. 146) says:

The young people must learn to conduct themselves, to use the freedom which they will have later on. If certain faults are developed by this régime of independence, so much the worse. A presumptuous, peremptory, rash, disrespectful child is worth more than one whose will has been broken. If there are those who can not have freedom without making a bad use of it, so much the worse. All that can be done is to point out, make them feel, the sad consequences of their manner of acting. Whether or not they accept the suggestions is their own affair. One can not sacrifice the welfare of the great number who profit by this freedom. The school must furnish the armor necessary for the struggle of life and show how to use it for the best. If there are those who prefer to use it badly, the school is not responsible.

In another connection (p. 143) Passy says:

A quite characteristic trait of moral education in the United States is the confidence which they show in the pupils \* \* \*. In everything they assume as certain, until proved to the contrary, that the pupils can not lie nor deceive.

In contrasting the ideals of America with those of Austria, Schmidhofer ([82], p. 58) says that in Austria—

The child is an inferior being, whose thinking, feeling, and willing is entirely dependent upon parents and teachers, \* \* \* but America is the land in which the basic ideal is that children are creatures possessing a free will and are not merely inconvenient burdens and playthings to be supported by parents.

Sadler ([76], p. 131) says:

The striking things in American education are not its curricula, but its point of view and attitude of mind. Its aim is to develop individuality through discipline in the common schools. It derives its extraordinary influence from the fervent faith which inspires it.

The foregoing statements are typical of the general trend of opinion among our observers. They point out some rather well-marked tendencies. America, in general, believes in respecting the personality of the child and in permitting free play to his spontane-

ous activity, so far as it is consistent with the rights of others to do so; but nothing is permitted which interferes with the welfare of the majority. Beyond that boundary American individualism is not permitted to go. The children themselves seldom wish to go thus far when they truly understand the situation. There is also a strong tendency away from the old notion of total depravity. It is no longer considered that children are "little vipers" whose every movement should be repressed. It is thought better to develop the instincts of the child through properly guided activity. Children are not diamonds in the rough which need polishing; they are not mere containers waiting to be stuffed with knowledge, but they are living beings possessing talents which must be developed and rights which must be respected.

Some of the critics, however, are opposed to the idea of respecting the personality of the child. They believe that the game is not worth the candle. This is particularly true of the German observers. Thus Dulon ([28], p. 273) says:

The American child shows a lack of discipline. He is arrogant and presumptuous. Accusation, slander, denunciation of misdemeanors committed is a choice activity. I never saw children more zealous nor more inclined to exaggeration on the one hand, and arguing and denial on the other. There is a lack of respect of elders. The American child knows nothing of the bashfulness, attention, modesty, and reserve of the German child. He is not sensitive of beauty, art, science, and the love of truth \* \* \*. He shows obedience to the teacher no farther than the door of the schoolhouse or no farther than the eye or the stick of the teacher extends. The discipline desires superficiality, commands superficiality, and punishes superficialities. Hence it can only attain superficiality.

It must be remembered, however, that Dulon is writing of the United States at a time when it was made up largely of pioneers and when individualism was naturally strong. Such schools doubtless still exist in remote regions, but not generally. The change which has taken place is reflected in the following criticism of Griebisch ([39], p. 615):

The tendency of the American educational system to remain entirely superficial and to be satisfied with outward appearances is noticeable in the discipline. The uninitiated person upon entering the school will be astonished at the ideal order which prevails. With machine like punctuality and exactness every movement of the classes or of individual pupils takes place. Yet this discipline does not exercise the expected influence upon the growing character of the pupil. He is under constant watch and behaves either from compulsion or for a reward. His education in moral freedom is not furthered, and in spite of such showy discipline he knows not the respect for authority nor the honor due his elders. This lack is reflected in the indifference and disdain for authority in civil life which is the most dangerous obstacle in the way of the healthy national development.



Clasen ([16], p. 353) says:

The apparent and recognized individualism and impudence of the American child betrays an indifference concerning the real demands of home discipline and parental responsibility.

The substance of the three criticisms seems to be that American children are not obedient or reserved. They are lacking in respect and modesty. These statements are undoubtedly true when one compares the American children with those of Germany, France, and England. But, as has been already suggested, America prefers to sacrifice blind obedience in order to gain alertness, initiative, and self-control. This means that it is better to allow some children to seem impudent and disrespectful if the plan is successful in general. It may be true, as Griebisch suggests, that the innate individualism breaks loose in some children when they get out of sight of the teacher, yet this does not prove the American system bad as a whole. American children are orderly when it is necessary for the general welfare that they should be so. This is not superficiality. To do otherwise would mean to develop a subdued and broken-willed type of child, a forerunner of adults who would be a menace to American institutions. It would mean a nation of people who might be very efficient in obedience to authority but utterly helpless as citizens constituting the sovereignty of the American Nation.

The doctrine of individualism requires that each child be taught to reason things out for himself. But Beck ([4], p. 128) points out that young children are not capable of reasoning and concludes that—

Since reason is lacking in the pupil, he can not understand things on that basis. Thus a teacher who has once begun the practice of appealing to the child's reason must go from bad to worse. He must bring about a situation in which the will of the pupil is the thing that counts.

Beck, however, overlooks some important facts. If the child is permitted to use his reason under the right conditions, he will rapidly improve his ability in that respect. Then, too, why should not the will of the child be the thing that counts, provided that the child has had proper training in deciding things for himself? Finally, Beck forgets that children whose rational and volitional powers are undeveloped may be easily controlled through suggestion. They have continually before them the example of their older comrades. The skillful teacher reinforces this example by pointing out that the students in the upper grades do so and so, at the same time appealing to the higher thought and volitional powers of the little ones so far as this is possible. In all probability, the orderly pupils whom Greibisch accused of superficiality were orderly because

they wanted to be and not because they were afraid not to be, or because they were hoping for a reward. Order can exist independently of blind obedience, but not among those who have been trained to look upon obedience as the one cardinal virtue.

Beck ([4], p. 128) also objects to individualism and respect for personality because it sometimes leads to the parade of the child's virtues.

The idea that \* \* \* whatever the child does should be exhibited seems to me to be like the public dance and the rubrics for children in the newspapers, merely the crying of market wares which destroys the modesty of the youth which should be the true atmosphere of his development.

Here again it is a question of paying the price for a desirable thing. Young children are all inclined to be individualistic and self-centered. The German would utterly suppress this tendency, while the American simply allows its exercise but redirects it and saves it as a basis for the self-confidence which is so valuable for the American citizen.

While the practice of respecting the personality of the child involves paying a price—even a high price—yet it is worth all that it costs. It is perhaps our most cherished ideal. Bain ([2], p. 29) says:

The station of no child can be predicted in a country where all boys are potential Presidents and all girls potential Presidents' wives, and where all are regarded as entitled to an equal opportunity of making the best of his or her own individual life. The aim of American education is therefore to discover the natural bent of each boy or girl and to develop it to the utmost.

Rathbone, in the Mosely report ([66], p. 261), says:

To encourage self-government, self-expression, and self-activity is the constant aim—sometimes it may be to an extent which may leave little room for the cultivation of modesty and reverence. \* \* \* There is no other department in which we have so much to learn from America as from this new spirit of school discipline.

Mark ([63], p. 108) says:

The American schools aim distinctly at individuality, but it is an individuality tempered and enlarged by social conditions and social needs. Freedom without license, movement without disorder, ease without idleness, represent the American standard of discipline.

Sadler ([76], p. 130) says:

American education derives its greatest strength, not from its technical aim, but from the fact that it is animated by an intense and indeed religious belief in the rightness of giving to every boy and girl in the community, as far as possible, an equal chance to make the most of his or her natural powers. This is the real secret of the immense force of American education.

The last three criticisms are from the nation which undoubtedly understands us best. Each of them is based upon a profound respect

for the individual. Without such a respect the criticisms would have been impossible. They therefore serve as a fitting conclusion to the discussion of individualism and respect for personality as elements of the American educational ideal.

### THE IDEA OF LIBERTY.

In the discussions of equality and respect for personality, much has already been said concerning freedom. In the Declaration of Independence liberty was given the same rank with equality. It is undoubtedly a fundamental part of our philosophy, and its influence will be particularly marked in the criticism considered in Chapter II. It is worth while, however, to mention one criticism here as a type of what our visitors have to say in this regard. Buyse ([13], pp. 8-9) says:

We wish our children to be obedient and disciplined while the Americans \* \* \* wish, before all, young people of initiative, independent, and self confident. They willingly support the caprice and almost tyranny of the children to attain this end. At school, one has the impression that the pupils are leading the teacher. The young Yankees have not the humble and servile attitude of our children toward those who instruct them \* \* \*. To free the thoughts and feelings from all guardianship, to gradually reduce the rôle of the teacher to the profit of the responsibility of the young man or young women. Such is the purpose of education.

To cause children to act quite freely as if they were alone in the world; to increase the pleasure of effort and the joy in conquest, to secure the possession of self-control \* \* \* such is the high task of the school.

In the performance of this high task, the schools are furnishing an ever-growing realization of the ideals of all the sturdy American patriots who have fought, bled, and died in the cause of human liberty.

Closely connected with the ideals of freedom is the doctrine of indefinite perfectibility, which also implies a strong power of adaptability. If men are to be free to improve themselves they must not be restricted to any one activity. A change from one environment to another must be possible. Barclay, in the Mosely Report ([66], p. 400), says:

The acquisition of knowledge is becoming of less and less importance as compared with the development of character, health, and adaptability and with the making of handy men and women who can turn themselves to anything.

Rathbone in the same report ([66], p. 262) has the same idea:

American education aims to give children those qualities which will make them good citizens, competent workers, resourceful, self-reliant and adaptable, good observers, able to record their observations correctly, compare, group, and infer justly from them and express cogently the results of their mental operations. Qualities are stressed more than knowledge.

The inalienable right of the American citizen to self-improvement and growth must not be sacrificed. Freedom of movement from place to place must be safeguarded, and changes of occupation must not be impossible. The power of adaptability is therefore one of our most valuable assets.

Adaptability in the individual is a long step toward the power to cooperate with others. It has been pointed out that while the Americans are strongly individualistic, corporate spirit is not absent. Mark ([64], p. 37) says:

The prize system is not emphasized because it suggests working against each other rather than together. Children are encouraged to help one another. Cooperative assignments are used. School clubs and organizations are encouraged. Athletics is encouraged because \* \* \* it trains in cooperation. \* \* \* Obedience is based upon the value of community control in social welfare and not upon external control.

Armstrong, in the *Mosely Reports* ([66], p. 7), says:

They (Americans) have learned to work together and subordinate their individual opinions to an extent which we have difficulty in believing possible.

All of the *Mosely* committee agree upon the existence of a cooperative spirit among American teachers.

Burstall, however ([12], p. 38), thinks that—

Corporate life in the school is not so strong as in the great English public schools. There are no monitors or prefects, who are so important a part of character training with us. Athletics is for the few, not for all, and the need for social life is not well met.

While it would be unwise to attempt to transplant the system of the English public school into this country, yet there is truth in what Miss Burstall says. The lesson of cooperation is a hard one for America to learn. Cooperation does not come naturally to us. This is undoubtedly one of the things which need attention and care on the part of our educational leaders. The powerful belief in majority rule will help, but it must be remembered that the American is by original nature strongly individualistic. To attempt to crush this national tendency would be disastrous. The only hope lies in devising some method of redirecting the individualism in such a way as to keep it from interfering with the growth of the cooperative spirit.

One of the characteristics of American education which grows out of the doctrine of the indefinite perfectibility and which is quite frequently stressed is the fact that it is dynamic. It grows. Gizycki ([26], p. 335) says:

One of the fundamental conceptions which Anglo-Saxon educators wish above all to inculcate in their pupils is the faith in the progress of humanity, both mentally and morally.

This belief in progress will tolerate no limitations of the caste-system type. There is a tendency to throw tradition overboard; at least there is a searching type of self-criticism which refuses to tolerate old things simply because they are old. Nothing is looked upon as being absolute or final. This is what Sadler calls "unrest in education." In his discussion of this topic ([76], p. 139), he says:

This power of candid self-criticism, coupled as it is with deep insight into the complex nature of educational problems and with the old hearty and vigorous belief in the efficiency of school training in the building up of a great nation, shows that at no earlier period has there been so powerful and enlightened a movement for educational progress as is stirring the United States at the present time. The most impressive characteristic of the new movement is that it combines frank and searching self-criticism with a deep and unflinching faith in the power of education to mold the future of a great people, and in its being able, while inspiring all with a sense of national unity and collective responsibility, to preserve and strengthen what is best in individual character.

In another connection Sadler ([76], p. 159) comments more specifically on American criticism:

His (Dr. Dewey's) criticism deepens our sense of the intricate difficulty of the problem of industrial reform. \* \* \* His views are a striking expression of the unrest which is at work in American as in European education. \* \* \* He has thrown into a philosophic form the instincts of a rather leveling democracy as applied to the problem of educational reform. \* \* \* He frankly avows his hostility to the old tradition, social and educational. \* \* \* His argument rests on a very sanguine view of human nature and on the assumption that we can safely cut ourselves off from the wisdom latent in a well-established educational tradition. Like Rousseau, he takes it for granted that men, when liberated from the fetters of tradition, will naturally cooperate with one another in happy and fruitful activities. \* \* \* There rings through all his writings a revolutionary note.

This criticism refers to Dr. Dewey's work in his experimental school at Chicago. It was a type that could scarcely avoid shocking a staid Englishman. If that work was revolutionary it was not dangerously so, as subsequent events have proved. But the main point about the last group of criticisms concerning our great educational philosopher is the fact that his ideas breathe the spirit of progress. The same spirit characterizes American educators in general. They have assumed that educational conditions will change, and upon that basis they have done and will continue to do their work. This work may at times lack ballast but it seldom lacks power. Guided by the lessons of history, but not chained to them, the American educational leaders will turn the immense power of American ideals into the channels which lead to universal civilization in its highest and best sense.

Mention has already been made of the fact that the Americans are preeminently a practical-minded people. The boundless economic

opportunity and the hardships of pioneer life left little time for the pursuit of those things which are not of immediate practical value. Waetzoldt says: "As compared to us (the Germans), they (Americans) lack pensiveness, warmth of feeling, tenderness, childlike simplicity, and do not enjoy the fairy life of imagination and heart. They want quick results." Remington ([73], p. 53) says:

The word useful is the keynote of American education. It does not aim at making cultured men although it often turns them out by accident: it aims at making successful men. It supplies not frilling, but true foundations, \* \* \* a pickax rather than a silver-mounted walking cane.

According to Mark ([65], p. 104):

America believes in the principle of learning by doing \* \* \*; that education is life rather than a preparation for life. The hand is the instrument of the brain.

Some of the critics see danger in this tendency toward utilitarianism. Rowley, in the Mosely Report, says that both America and England engage in "A race for riches at any cost." Both show "an amazing adoration for mediocrity and the commonplace; both worship quantity rather than quality and both are prone to overstrutenousness." Remington ([73], p. 53) thinks that the "American boy looks upon education as a means of following and outstripping his dad in the rapid piling up of dollars." Sadler ([76], p. 140) says:

What is going on in America is a fierce struggle between two contending forces and ideals of life. \* \* \* Among the best antidotes of materialism and selfishness are idealism and self-sacrifice in the school. A businesslike idealism is the characteristic feature of American education at its best. This combination of two great qualities will protect the schools from the dangers of vulgar utilitarianism on the one hand and from undue excitement, superficiality, and self-advertisement on the other.

America believes in securing equality of opportunity to each individual. The environment has been such that the greatest opportunity has been in the economic and practical fields. This has naturally given rise to a great love of physical well-being, which is made possible only by the possession of money. The making of money has therefore become our chief means of self-realization. To some it has become the be-all and end-all of existence. This is an extremity which must be guarded against, and it constitutes one of our most serious educational problems. It is well to keep the dangers of this situation in view, and our critics have a right to call attention to these dangers. But those who criticize us most severely should remember that the privilege of casting stones belongs to the guiltless. It would be hard to prove that Americans are striving after money more keenly than are the people of other nations. Our immigrants seem just as anxious to secure wealth as do our native born. Our ability in a practical way has its drawbacks but it, too, is worth

all that it costs. With all of our materialism and mercenary spirit, no true American would prefer to exchange our pride in honest toil in our favorable environment for "white-handed aristocracy" under the economic conditions of Europe.

The following ideals and tendencies of American education have been pointed out by those whose criticism has been quoted in this chapter. First and most fundamental is the belief in equality, particularly political equality and equality of opportunity. Out of this doctrine has grown the belief in the indefinite perfectibility of man. This with the absence of a class system, has made possible a progressive and dynamic spirit which is quite unusual in other parts of the world. It has also been the basis of a strong, though irrational interest in education. In spite of pronounced individualism, there is a vigorous emphasis upon nationalization as is shown particularly in our success in the Americanization of the immigrant. Respect for personality is favored in spite of the difficulties which it involves, while individual adaptability and personal initiative are looked upon as two of our most priceless possessions.

Such are the ideals and guiding principles of American education. They are the subconscious forces of our national life, which profoundly affect every phase of our existence. The remaining chapters are concerned with a more detailed study of their influence in the more limited fields of our educational theory and practice.

## Chapter II.

### THE AMERICAN SCHOOL SYSTEM.

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The American school system has had a different history from those of Europe. The European systems are the result of gradual growth *in situ*, while ours originated in a transplantation of European ideals into the American wilderness. The people who first came over were highly civilized and possessed definite and conscious ideals when they came. Furthermore, they represented the hardiest, bravest, and most dynamic spirits of Europe. Otherwise they would not have dared to face the dangers and hardships of pioneer life. They brought many of the European ideals with them, but these ideals were sharply refracted upon entering the American environment. Having felt the oppression of European tyranny, it was natural that being left to themselves they should develop in a manner at variance with European practice. A notable example of this is seen in the type of school organization which was developed. Decentralization was the rule, and this found a typical expression in the district system of administration and control. This was a natural outgrowth of individualism, equality, and the love of freedom, yet the ideals of Europe had an influence. In the southern colonies these ideals were represented by the aristocratic and *laissez-faire* ideals of England, while in the North the most characteristic tendency was a result of the religious ideals centering in Protestantism, and particularly Puritanism, and leading toward governmental control. The latter tendency was the one which finally prevailed. Religious influence was strong at first, but it worked itself out through governmental control of a decentralized type. By the early part of the nineteenth century this decentralization had reached an extreme form which was intolerable. This gave rise to the reforms centering around Horace Mann which started a tendency back toward centralization. This movement, though stubbornly resisted, is still in progress.

This brief survey is necessary in order to understand much of the criticism of American school organization and control. It must be kept constantly in mind that we are concerned with European ideals which have been introduced into a new environment. Some of these ideals failed to function to any great extent in the new surroundings. This was particularly true of European social stratifications. All such notions were replaced by the idea of human equality. Along



with this change come also a weakening of the philanthropic ideal in education. Shadwell thinks that this is an advantage. He says ([83], p. 375) :

He who pays the piper calls the tune. Private schools must meet the demands of their patrons. When schools are free and carried on by philanthropic or religious agencies the schools give the kind of education which those who conduct them think fit. When they are free and paid for by the community they must teach that which will benefit the community as a whole. The community has a right to call the tune, and a national ideal is necessary as a basis for national education in the interests of the community at large.

This is not possible under private or sectarian control, because such control always identifies some particular end of its own with the general welfare. Such an end is really a means, yet it tends to be made an end in itself. This quotation gives the reasons why the tendency in America has been toward State control and away from the private and sectarian type. After the Revolution the question of national survival became of dominant importance, and it was felt that such survival was possible only through the universal education of all the citizens. The principle of equality required that each individual should participate not only in education itself but in educational control as well. The general welfare took precedence to a large extent over the aims of any one individual or class. Under such conditions State control was a necessity. State control also has further advantages. Jephson, in the Mosely Report ([66], p. 211), summarizes them as follows:

An educationalist has control of all the schools. Changes in curricula can be made easily. One man gets accurate knowledge of his teachers and can promote the most deserving at once. The whole system may be easily coordinated. Teachers may be trained and examined, schools may be inspected, pupils may be transferred from elementary to high school, and if the system is not successful those in charge of it may be removed.

Thus State control erects a formidable barrier against the control of the schools by any one class. Narrowness is avoided and progress is guaranteed.

On the other hand there are some disadvantages. Jephson ([66], p. 211) says:

There is a tendency toward centralization of power. Worthy people may be deprived of helping in education under an autocratic superintendent and such a superintendent, if unprogressive, might foster a stereotyped form of organization.

Kerschensteiner ([47], p. 6) says:

Imperial control of education is a misfortune. \* \* \* Nothing is more dangerous for the school than an all-inclusive system that reaches out over broad domains, having no regard for territorial conditions, much less for purely local demands. It produces too much uniformity and too little freedom

in administration. \* \* \* Progress is obstructed. New ideas are not taken up. \* \* \* There are too many traditions that are sanctified by law and always vigorously defended.

Sinclair ([85], p. 21) objects to State control because—

It means the omission of the catechism. Children will not respect religion since the State does not encourage it. \* \* \* It causes religious contentions in connection with school elections. \* \* \* In involves compulsion.

Langlois ([52], p. 167) says:

The refusal to give public money to denominational institutions is not consistent with freedom.

Sadler ([66], p. 144) thinks that—

The problem of direct public control in education is far more complex and difficult than many of the more zealous advocates of educational democracy used to realize. Perhaps the final result will be an agreement to differ, and a readiness to put up with that composite arrangement which permits all kinds of schools, all kinds of educational influence, and all kinds of management to coexist, provided that one and all are in *some* direct relation to the State, and that one and all are animated by an intense desire to promote individual culture, moral progress, and national unity. Education can never be left wholly to private effort or individual initiative, but these elements with the many forms of religious belief are necessary parts in any system of national education worthy of the name. No kind of administrative monopoly can ever be sensitive enough to the deeper and ever-changing needs of national life. Educational problems necessarily involve questions in regard to which neither the State nor a transient majority of votes in any particular district nor any one spiritual society can ever hope to succeed in getting the last word. What is needed is some combination of State sanction, of local patriotism, of religious influence and freedom of individual initiative.

These four forces are all represented in American society and their adjustment is the problem of education control as it exists with us. To coordinate these, to provide for progress and avoid narrowness and rigidity is the task which is challenging Anglo-Saxon genius for organization both here and in England. Two dangers threaten: One is the temptation to put portions of our education, such as the vocational, under the control of vocational specialists rather than educators, and the other the tendency toward national paganism due to the exclusion of religious instruction from the schools. They are serious questions but solutions for them will be found.

In spite of all its disadvantages America is tending more and more toward State control, and even more and more to a centralized form of it. This is because local control also has serious disadvantages. Loizillon ([59] p. 10) says:

In the United States there is an educational lack which is keenly felt and which constitutes an inferiority and even a blot upon the school organization. It allows children under school age to be abandoned without surveillance and without direction to all the dangers of the street and, that which is worse, to all the evils and bad influences during a whole phase of their life, the most important perhaps—that in which good habits ought to replace the lack of judgment and reason and act as a basis for their later development.

The truth of this criticism has since been recognized and compulsory attendance laws are the result. The solution of the problem will not be complete, however, until we have better child labor laws, medical inspection and part-time continuation schools. But all of this necessitates some form of centralized control, and there is a growing belief that the State has a right to force the selfish local community to give a square deal to its children.

Griebsch ([39], p. 613) calls attention to two other defects in purely local control:

Lack of general leadership for the school organization of the United States leads to a great diversity in the school work as a whole. \* \* \* The teachers have the right spirit but they have no teaching plan or guidance.

The first portion of the above refers to the lack of standardization of the schools. It is being corrected by placing more emphasis upon State control. Schools are being inspected and classified and local boards are being brought into line by means of State grants to approved schools. State courses of study and larger units of supervision are meeting the second defect. In a similar manner the injustice arising from small areas of taxation is being adjusted.

Another defect of local control is the influence of politics. Wal-  
lage ([88], p. 115) says:

Since most of the school board members are politicians their presence in such a capacity gives rise to many difficult problems. \* \* \* Above all things, the American system must free itself entirely from political official dilatoriness.

Höfer ([46], p. 647) says:

Right important is the movement among school authorities, which aims to do away with the motley multitude of school boards, to which the restlessness and unsteadiness of school growth is to be ascribed and to replace them by real steady authority in school affairs. The most important task in this connection is to remove school authorities from the accidents of political elections which every two years bring often an entire change of personnel and therewith also changes in ideals and practices.

Barneaud ([3], p. 144) says:

The authority of the State superintendent is nil, or almost so. \* \* \* But that which appears incurable in the actual situation as we have examined it all over America and even in New England is the absorption by the local authorities of the power which belongs higher up. It is against the local boards, the trustees, whose horizon does not extend beyond their club or party, that the State is powerless. \* \* \* The townships of New England, like the independent districts of West Virginia, give cause for fear when they are given over to the power of the strong men of the district, the cocks of the steeple, or, as they say over there, the local tenor, or what is worse, to the chief of a gang who gives the school positions and functions over to his faithful adherents as spoils.

Unquestionably there was justice in the criticism of these men at the time of which they speak. But an enlightened public sentiment

has removed much of the evil by strengthening the central authority. There has been some improvement everywhere, though much more of it is still desirable in certain localities and at certain times.

The German critics think that it would be a great help if we were to elect only educational experts to membership on our local school boards.

Dulon ([28], p. 235) says:

Custom in Germany calls for a group of expert men on an administrative board. Whoever has proved and distinguished himself as a schoolman, whoever has furnished evidence of good results in his scientific studies, to him is open a position upon the administrative board. \* \* \* In house building the educated American recognizes the necessity for the expert hand of the architect, even for the sketching of a plan. He calls on a Roebing when he has in hand the huge work of a bridge across Niagara; even in his private affairs he knows how to find the expert and is justly angry at the bungler. \* \* \* In relation to school control he holds \* \* \* other views. No laws have been passed growing out of the free will of the voters requiring scientific or cultural training for school board members.

Such an arrangement may work in Germany, but there seems to be very small likelihood of its being adopted here. There is something about the plan that seems to call forth resistance because of our belief in the principle of equality. Lay board members have in general proved themselves capable of performing the duties which devolve upon them. Such a plan makes possible a more general participation of the public in the control of education. If expert or professional knowledge of educational affairs were required, the control of the schools would necessarily be in the hands of only a few men, because the number of qualified people would be limited. Common opinion among school superintendents is that the presence of even one former school teacher on the board is undesirable. A board member of this type is apt to possess a strong prestige, accompanied by narrowness and an ultraconservative point of view. For these reasons lay membership of local boards seems preferable so far as America is concerned.

Klemm ([48], p. 41) sees a further disadvantage of local control. He says:

A democratic form of government \* \* \*, which in all other respects may be looked upon as a blessing, is nevertheless an insurmountable obstacle in the way of rapid and safe advance in school instruction. Local self-government prevents national concentration in school organization control and supervision and this causes slow and painful growth. Teachers must run from one school board member to another to see that essential things are taken care of. Every act of a democratic government calls for long-winded speeches, while one responsible minister of education can perform with one stroke of his pen what requires years of earnest effort to accomplish. \* \* \* For example, Horace Mann had to fight for years with every ounce of his strength and had to beg thousands of dollars from his friends in order that the first normal school in America might be opened.

Klemm is partly right and partly wrong. The difficulty exists but it is not "insurmountable." Advance may not be rapid but it is safe. It takes a long time to arouse public sentiment and elevate public opinion, but when it is once done the results come easily and quickly and they are permanent. This is the reason why democracies show such tremendous strength. They have built slowly but well. That is why Horace Mann and other great reformers stuck to the task for so long. They knew that they would finally and permanently prevail. A faith such as theirs was never so much needed as now, when changes in educational affairs are in such great demand, and never was there less tendency to adopt the autocratic ideal which Klemm suggests.

Such are the chief difficulties arising from local control. Yet America is very loath to part company with it entirely, for it has some splendid advantages. Even our German critics recognize this. Kerschensteiner says ([47], p. 7):

German communities do not control their schools. They take what emanates from the Government. \* \* \* The average American is much more interested in the local schools than is the average German. There is more discussion and more space in the newspapers for education. Such democratic conditions are conducive to progress when the average intelligence of the community is high.

Kuypers ([49]. p. 130) says:

The transfer of the right of voting upon school affairs into local neighborhood enables the school to suit itself to the community in which it is situated and increases interest and devotion on the part of that community.

Also on page viii of the same treatise the author says:

Democratic provisions are made from below upward, and not the reverse as in a monarchy. This gives rise to a happy initiative. New thoughts are at first realized as experiments only, but they carry with them all of the profound joys of creation. Progress grows out of error.

In regard to decentralization of control Compayré ([19], p. 11) says:

Is it not true that local control, though slow in its system of evolution, even if it does go with much groping, error, and loss of time, has at least the advantage of making fruitful the activities which it does not repress, of sustaining the life which it guards against being inclosed in advanced fixed forms? (Is it not true) that, under the control of attentive and wise leaders even at the price of some instants of confusion, it can lead toward definite order in which will be found, disencumbered from all practices which experience shall have condemned, all which the spirit of freedom, goodness, and usefulness can inspire?

Thus with all its defects, local control brings interest, devotion, adaptability, and the hope of progress. On the other hand, centralization provides unity of control, speed in reform, intelligent su-

pervision, coordination and standardization of the schools, more intelligent board members, equality of opportunity for all the pupils, equalization of the burdens of taxation, and insurance against narrowness. Each type has advantages which the other can not supply. Some combination of the two is needed and Anglo-Saxon genius for organization is working it out through the administration of Government grants, through requirements for the certification of teachers, and through the practice of classifying and standardizing the schools. No local community is compelled to meet the demands of the central authorities, but they lose the aid from the State if they do not do so. The process of adjusting the balance between these forces is still incomplete, but the way is open to a nearer and nearer approach to a plan which will combine the advantages of both types while it avoids their disadvantages.

Perhaps the most difficult phase of the foregoing adjustment has centered around the question of compulsory attendance. The existence of State laws of this type has long been justified; first, on the ground that an educated citizenship is essential to the very existence of a democracy; and, secondly, because education has been looked upon as an inalienable right of every child. On the other hand the American parent has stubbornly insisted that if he wishes to keep his child out of school he has a right to do so. Klemm ([48], p. 6) says:

It seems to me as though in the United States everything is permitted which is not expressly and legally forbidden; in Europe the reverse is the case.

The long struggle concerning compulsory attendance represents a conflict between State and local forces. The fight does not end when the laws are passed but continues as a question of enforcement. Many critics see our shortcomings in this respect. In another connection Klemm ([48], p 43) says:

In spite of the money spent on schools and in spite of the compulsory attendance laws, 7 per cent of the whites and 47 per cent of the colored are still illiterate. There are thousands of school classes in which only half of those who are enrolled are present \* \* \*; in which those who are present to-day are rarely the same as those who were present yesterday, or as those who will be present to-morrow. School boards even expect the absence of a large number of pupils each day, because they do not provide sufficient desks to seat all who are enrolled. A classroom with a seating capacity for 40 pupils may have an average enrollment of 50. \* \* \* Child labor in factories, in newspaper selling, in field and garden work is very widespread in America and the strongest efforts are being made by the well intentioned to remove this evil. But whoever knows the average American will recognize the hopelessness of the Herculean task of bettering school attendance through compulsory attendance laws. \* \* \* As long as the failure of his neighbor's children to attend school does not directly affect the individual citizen, he troubles himself very little about it.

Klemm revealed the facts as they existed when he wrote, but even then the condition was not general. His predictions as to the hope

of improvement, however, have not been borne out. Conditions have improved, at least in general. He did not recognize the strength of the progressive forces which were at work, though still hidden in his day. Here again we have an example of how an apparently hopeless situation in a democracy may suddenly vanish and be replaced by permanently better conditions. Much child-labor legislation has been passed and much more will be passed in the near future. The truant officer has come and the newsboy is disappearing. From the apparently hopeless condition of 15 years ago the question of attendance has become one of our most hopeful prospects. An awakened public sentiment operating through State grants, based upon school attendance rather than upon mere enumeration, has done the work. At present the question of enforcement is already being replaced by that of extending the age limits for compulsory attendance and the foundation of continuation schools upon the employer's time. Thus centralization replaces decentralization even in this difficult field, and all this happens without losing the values of decentralization.

The lack of adjustment between the forces of centralization and decentralization has also led to a neglect of the United States Bureau of Education.<sup>1</sup> However, the bureau is very efficient within the limits which have been assigned to it. According to critics, nothing like it can be found in continental Europe. The German critic is particularly impressed with the value of such a bureau for Germany. For example, Grimm ([40], p. 416) says:

How much spirit and labor could be made use of, if even the proud German Empire had an official report concerning its educational system \* \* \* within and without its boundaries \* \* \* published annually; independent of definite official control and of political considerations \* \* \*. Such is the United States bureau. Its unfettered judgment and its ability to compare results from the various countries, gathered from year to year, makes each commissioner almost the culture pioneer of the Union.

While the bureau has not yet been invested with executive power, it has, nevertheless, published a mass of school reports and pedagogical literature which may well be the source of great pride and satisfaction to the people of the Nation.

American decentralization has also discouraged the organization of types of schools for the purpose of dealing with retarded and supernormal children. Klemm tells of meeting with this spirit ([48], p. 47):

Many defects in the knowledge of neglected pupils could be removed if they had more classes for backward pupils. This was tried out in one city but the parents objected, saying that "their children were as good and a good deal better than anyone else's."

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<sup>1</sup> See also p. 16.

This tendency is slowly but surely passing away. The belief in the welfare of the majority has caused a temporary neglect of the minority, but there is no evidence to show that the minority will always be so neglected.

#### TYPES OF ORGANIZATION.

Having pointed out the forces which are connected with the control of American education, the criticisms pass naturally to a consideration of the type of organization which these forces have produced. The striking characteristic in the eyes of our visitors is the fact that this organization is of the "ladder type"—that is, every student may pass directly from the kindergarten through the university. This characteristic is peculiarly American. In Europe, as a rule, the student who enters the elementary school can not transfer to the secondary school. The two are not coordinated. This is due chiefly to three reasons, all of which are historical in their nature. In the first place, the European elementary school has had a different origin from that of the secondary school. The latter is represented by ideals which are radically different from those of the former. Secondly, the elementary school is a school for the lower classes. Thus a pupil who has entered such a school finds his way into the secondary school blocked, partly because he can not meet the entrance requirements and partly because the secondary pupils belong to a higher social class which objects to associating in school with pupils of lower rank. Thirdly, the secondary schools of Europe are pay schools, which the poor can not afford to attend. In America all this is different. There are no social classes of the European type. The high school, which is our chief secondary institution, is an outgrowth of the elementary school, and all the tax-supported schools are free. The absence of social classes in America leads to democratic elementary and secondary schools. All pupils, rich and poor, high and low, occupy the same school benches. The American high school is also a composite of the two types of European secondary schools. Its course of study is both literary and scientific. All of this seems strange to the European, when it does not exist generally in his own country. In general, he praises our arrangement because it provides the highest of education for each person who is able to profit by it. It is one of the best illustrations of the influence of the American belief in equality of opportunity and belief in the unlimited perfectibility of the individual, and, therefore, the phase of education of which the American is most justly proud.



Though approving the ladder type of organization many critics see imperfections in it. Shadwell ([83], p. 380) says:

The ladder formed by a generous but judicious system of scholarships is superior to the door nominally open to all but really closed by circumstances. for some go in who can not profit, and others who might profit are kept out. The selective agency is wrong, and it is shown by the significant fact that female students outnumber the male in the public high schools.

It will be shown in the chapter on secondary education that the preponderance of girls is due to other causes, but Shadwell's point is still well taken. The problem is one that merits more attention than it is getting. There are pupils who can not profit by the present type of curriculum, and there are those who must discontinue their school life in order to go to work. For the first, a richer curriculum and better teaching methods are needed; for the second, some form of economic aid must be devised; otherwise, some of our people will be deprived of the right to improve themselves to the limit of their abilities. Here again we meet the need for continuation schools.

Another and a more general type of criticism suggests that the coordination of the different levels of instruction is far from perfect. The most serious maladjustment is between the elementary school and the high school. For instance, Mark ([63], p. 171) says:

The separation between grammar grade and high school subjects is far too great. Far too much of the drudgery of commencing new subjects is left to the first year of the high school. It is common testimony that it takes some months for the pupils to feel their way into the high school, and a great number leave at the end of the first year. This is seizing young ambition by the throat and giving a quietus to many bright hopes; for the high schools should be a part of the careers of each boy and girl. The cry against overloading is the result of the gap between the elementary and the high school. The pupils are compelled to make up lost time.

This is undoubtedly one of our most serious problems. It will be taken up again in the chapter on secondary education.

A similar gap is pointed out between the high school and university, but it has been largely remedied by the practice of classifying and standardizing the high school.

Another type of criticism centers around the character of American institutions. Thus Compayré ([22], p. 144) says:

In the American school system we note the absence of precise lines of demarcation, in consequence of which hardly any institution of instruction presents a pure type. It is, as it were, of mixed blood. Thus the high school is at once secondary college and a higher elementary school. Some universities are nothing more than colleges. In the same way the normal school is a hybrid institution, which sometimes takes the title of normal college or even that of normal university.

In [19], page 4, he says:

Perhaps the Americans are not as sensitive as we would be to the incoherence of an organization which attributes to different establishments successive stages of the same degree of instruction. One manifest inconvenience which results from this is that the major part of the high-school pupils fail to enter college. While in France almost all of our pupils continue in school at the age of 18, hardly one-sixth of the high-school population in America does so. Perhaps the Americans do not discern clearly enough the confusion and abnormality of the administration of their high schools \* \* \*; establishments half secondary and half elementary, into which are admitted at the same time pupils who do not wish to go beyond the high school in their studies and those who are preparing for college.

Barneaud ([3], p. 16) says:

Even to-day one does not know (in America) just what is meant by the term "university"; one has not a definite idea of the true field of the high school, of the secondary educational program, or the scope of the elementary school.

Lanson ([54], p. 5) describes the situation thus:

An infinite diversity, an incoherent independence, different names for the same thing, different things under the same name \* \* \*, a coexistence of all kinds of systems, of all kinds of types, no unity, no coordination, no authority.

Undoubtedly there is much confusion in the last group of criticisms, but there is as much confusion in the minds of the critics as in the American system. The chief difficulty arises from the fact that the French organization is greatly different from the American. In the first place, when this criticism was written America had nothing which corresponded to the *École primaire supérieure*. Corresponding work was done partly in the upper grades of our elementary school and partly in the high school. Secondly, the term secondary education in continental Europe includes all of the work between the completion of the elementary school and the baccalaureate. It thus includes all the work of the American high school and half that of the college or undergraduate department of the university. Third, in Europe the term "university" applies only to those institutions giving what is here called graduate work. It is not surprising, therefore, if the French observer fails to find a "pure type of institution" in America. It may easily seem to him to be "a coexistence of all kinds of systems, of all kinds of types, no unity, no coordination, and no authority."

But the confusion was not all in the minds of the critics. At the time of this criticism the United States was going through a period of standardization. The academies were passing. Some of them were trying to become colleges and even called themselves colleges, though they were in fact only of high-school rank. A similar thing was happening with some colleges which wished to become universities; many institutions which called themselves universities were

not so. On the other hand, many institutions succeeded in raising themselves to the higher level. In general, every American college as it exists to-day started as a secondary school, then gradually raised its curriculum, and finally dropped its secondary department. In like manner many of the universities were colleges previously. They have added departments of graduate work and some of them may in the future drop their undergraduate departments. The chief value of the criticism lies in the fact that it gives a picture of a stage of the growth of American organization which is now largely outgrown. Unfortunately, in the case of the normal school the tendency is still obscure. Probably they will soon all offer three or four years of work above the high school, but whether they will be academic or professional in character is still in doubt.

In his statement that relatively fewer high-school graduates enter college in America than in France, Compayré overlooks the fact that the American high school includes all social classes rather than only one, as in France. The high school prepares for life in general as well as for the university, while the lyceé prepares for the university and for entrance into a few professions only. In America it is not expected that all high-school graduates will enter college. On the other hand, the fact remains that many who should continue their education fail to do so. This fact merits more attention than it has yet received.

Compayré is right when he points out the complexity of our high-school population. It includes pupils of different destinies and those representing every social class, but we can not agree with him in his suggestion that such a condition is undesirable. The policy of bringing as many social types as possible under the same roof for their education can not fail to contribute to a breadth of view and to a social sympathy and solidarity which is of inestimable value in a democracy.

Difficulties are involved, but such difficulties must be met and provided for if the high school is to be a thoroughly democratic institution. The rise of a caste system must be avoided at all costs. How to avoid it and still provide for the needs of the complex social population is the problem of secondary education in America. Some confusion and abnormality will necessarily result, and it is right that it should, for out of this confusion comes the opportunity of the high school to perform one of its greatest functions—that of harmonizing the various discordant elements of our Nation into one great harmonious whole.

Barneaud and Lanson mention a lack of definiteness that was unavoidable at the stage of growth which we were in at that time. Since then the distinctions between the different levels have been

much clarified, while in Europe these distinctions have become less clear. All Europe is confronted with a problem of educational reorganization which is more serious than ours. They thought they had it solved but they were mistaken. This is the general fault of autocratic control. The solutions which it provides "by the stroke of the pen" prove to be delusions, while democracy plods on slowly but surely, never quite satisfied with itself yet ever growing.

#### EDUCATIONAL ORGANIZATION.

The criticism reflects a further defect in our educational organization which appears quite serious. The critics from all three of the nations agree that American students are required to remain in school too long. The disadvantages of this practice are variously stated. In the Mosely Report ([66], p. 18) they are listed as follows:

1. It involves serious limitation upon the individual's period of independence.
2. It casts an improper burden upon parents.
3. It postpones marriage unduly.
4. The individual is withdrawn from the world of experience during the most susceptible period of youthful freshness.
5. He is dominated too long by teachers.
6. The time is so entirely spent on learning from others that there is no possibility of properly developing either imaginative power or individuality.
7. Mental procreative power is sacrificed, whereas it should be developed.

Miss Burstall ([12], p. 15) says:

The American school organization is in one piece but it requires too long to complete it, since it lasts from 6 to 25. \* \* \* Twenty-five is too late to begin one's professional career. \* \* \* Secondary work should begin two years earlier and the college period should be shortened.

Langlois says ([51], p. 293):

It is not normal for the American to keep young people in college up to the age of 21 or 22 in order to give them instruction which Europeans have at the age of 18.

Here we have good statements of the difficulty and suggestions of the remedy. The European student begins his secondary work not later than 12 and finishes work at 18, which is equivalent to our junior college work. The American student reaches this level at 20 or 21. Thus two or three valuable years are lost. To remedy this loss, some change in American school organization is necessary. For reasons which will be given later, it seems advisable to end elementary education at the end of the sixth grade. The American junior high school movement is an effort to solve this problem, and there is hope of a satisfactory solution. The chief difficulty lies in arousing sufficient public sentiment to secure a general adoption of the plan. As in the case of all movements toward reform in a democracy, progress is slow but sure. Much patience and tireless effort will be required, but the results to be obtained will be worth the cost.

## SUPERVISION.

American supervision has either been ignored by the critics or it has been criticised adversely. One defect is the fact that the supervisor's tenure is uncertain. Ryerson ([75], p. 178) says:

Our American friends appear to me to suffer \* \* \* in their educational interests from their love of rotation in office and frequent popular elections. \* \* \* Their system appears to me to be inconsistent, as a general rule, with the selection of competent superintendents, or with the impartial and thorough administration of the law among those by whom the local superintendents are elected or opposed, and to whom such superintendents are looking for votes in the approaching election. Under the operations of such a system, it appears to me, there must frequently be as much electioneering as school superintendence and administration and that the latter will often be warped to advance the former.

Gray ([38], p. 148) says:

The incursions of politics into American education has been doubtless a retarding obstacle to the best interests of the teaching profession. Graft is an ugly word but truth compels its use in this connection. Men of unquestioned ability and lofty ideals have been thwarted and supplanted even when, and sometimes because, their administrative success has been conspicuous. \* \* \* Superintendents of education, supervisors, and principals. \* \* \* men who in the old world might be thought permanently secure in the tenure of their office, have often been overthrown.

Barneaud ([3], p. 18) calls attention to the fact that this practice often means untrained superintendents.

It is popular whims, tyranny, and shameful political oppression which give the administrators their office and which, also alone, certify their incompetency.

Fitch ([32], p. 63) summarizes the defects of the superintendency as follows:

1. Uncertainty of tenure.
2. Dogmatism.
3. Lack of pension and lack of compensation for the loss of his office.
4. Too much connection with politics and patronage.
5. Interference by book companies who wish their books adopted.

This group of critics has pointed out one of our besetting sins. The belief that one man is as good as another naturally leads to the idea that the offices should be passed around. But conditions are no longer so bad as they were in Barneaud's day. The practice of electing city superintendents by popular vote is happily gone, while is also a tendency to employ city superintendents for more than a year at a time. Best of all, there is a growing public sentiment the practice of their appointment by mayors is in disfavor. There against ousting a good man. There is still room for improvement, however, for the superintendency is not yet safe. The children of the board members and those of prominent politicians still enjoy

too much freedom because the superintendents and teachers fear to make them "toe the mark" as other children do. With county and State superintendents conditions are still very bad in some of the States. The old system of popular election still prevails. While the term of office has lengthened, the candidates are still required to be citizens of the area in which they are elected. In the case of county superintendents this evil is particularly acute, since desirable candidates are often not available among the residents of the county. Consequently, the superintendents are usually politicians rather than educators. They have a narrow outlook and an uncertainty of tenure which makes truly good service impossible. State and county superintendents should not be elected by direct vote. The practice of popular elections and rotation in office for such officials is a natural outgrowth from the doctrine of equality, but it is a decided disadvantage to the cause of education. It is one of the evils of democracy which must be outgrown.

On the other hand, there is an equally great danger in making the superintendency too safe. Siljestrom ([84], p. 149) thinks that, as long as there is a frequent change of superintendents—

American schools can never be exposed to that listlessness and indifference, which, under a different system of management, may sometimes impede the progress of an educational establishment for years.

Miss Burstall ([12], p. 38) says:

America suffers from an excess of system in the public organization, schemes and rules as drawn up and worked by local educational authorities and their officials. Very little initiative is left to the teacher in the public-school organization: curricula, textbooks, even methods of teaching are settled by the committee and the superintendent. Officials are supreme and the teacher is often little better than a cog in the machine. All this must have the effect of driving the best men out of the profession. There is neither freedom of experiment, of initiative, or of organization, nor a tradition of personal influence in the development of character. One would have more scope outside in a private school. It may be that this excessive system, this rigidity and bondage is inseparable from an educational system fully organized and controlled by the State; if so, we may pray never to have such a system in England.

The preceding criticism clearly points out two evils, and it seems at first sight as though our problem could never be more than that of a choice between them. How to provide a greater permanency of tenure for the superintendency and still avoid autocracy and rigidity is still an unsolved problem. The same problem also exists to a greater or less degree in the case of the presidents of colleges, universities, and normal schools. At present the tendency is toward a more secure tenure in all cases. At the same time the cry of autocracy is being raised against these officials and against the boards. The hope of relief seems to be in the direction of the idea of checks and balances, which has so often proved useful in other

types and phases of control. In general, the superintendent and president have too much power. In particular cases there are such officials who do not abuse this power; but the fear of dismissal is never entirely absent among teachers. Teachers are accused and condemned by boards and administrative officers without having opportunity to defend themselves, and often before they know what is happening. They learn the results when it is too late to make a defense and impossible to do anything except hunt another position with another superintendent, who often insists on inquiring into any previous dismissals suffered by the candidate. Neither teachers, superintendents, nor presidents should be deprived of their position without due process of law. Secondly, all teachers should have free access to their boards through representatives of their own choosing. Thus the power of the superintendent will be limited without sacrificing his tenure of office.

Such are the main problems of organization, supervision, and control in the eyes of our critics. In each case they are worthy of consideration, and such consideration can not fail to bring about a clearer conception of what these activities should be in the United States.

## Chapter III.

### THE TEACHER.

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It has been pointed out that the doctrine of equality is fundamental in American philosophy. Its influence on the attitude of the public toward the teaching profession has been especially pronounced. Since, according to the basic principle, the ideas and opinions of one person are as good as those of another, the notion easily followed that one person was as good a teacher as another. Hence, in the early days special teaching qualifications were not recognized, and teaching positions often went to those who were most needy; to those who were willing to work for low salaries, and to those who were able to give only drill and memory work. The amount of knowledge possessed by the applicant was not always taken into consideration. On the other hand, the strong individualism of the pupils led to various types of misbehavior, and often the chief qualification of the teacher came to be physical prowess. Educational opportunities were very limited and it was impossible in many places to secure teachers who had been educated above the elementary level. Very limited intellectual attainments were sufficient to secure certificates for those who wished to teach. The general tendency, however, has been toward higher academic standards. Public sentiment now demands that the teacher shall have a fairly thorough knowledge of the subjects which he is expected to teach.

With regard to the professional training of the teacher, advancement has been much slower. While the educational leaders of the Nation have been urging better professional qualifications, their appeals have usually fallen on deaf ears so far as the general public is concerned. Professional training has failed to establish itself on a solid foundation. Even to-day it is highly probable that the great majority of those who have left the teaching profession during the past quarter of a century are of the opinion that they still know all about how pupils should be taught. All progress toward requiring universal professional training for teachers is made against tremendous odds. The old doctrine of equality is now represented by the dominant view that anyone who knows a subject can teach it equally as well as one who possesses such knowledge plus professional training. Normal schools tend to become academic rather than



professional institutions, and the United States has relatively fewer trained teachers than any other civilized country.

In view of these conditions it is not surprising to find that our critics unite in condemning us for the lack of training shown among our teachers. Klemm says ([48], p. 58) :

The worst defect of all is the lack of training. One must admit that this is the cancer of the school body which undermines its health. The German teacher will ask with astonishment: "How is it possible to furnish the schools with teachers if the normal schools do not supply enough graduates to meet the demand?" You innocent nursling of European culture! Here is the answer: To whomever God gives an office, to him He \* \* \* gives sufficient wisdom to manage it. The examining boards see that the candidates know what they are to teach, but whether they know how to teach, whether they know anything concerning the history of pedagogy, methods, logic, ethics or psychology. \* \* \* all this they seldom ask.

Grasby ([37], p. 240) thinks that their lack of training is shown in the behavior of teachers when they are being visited.

They tend to change their work. Many find it impossible to conduct the work in the ordinary way in the presence of visitors. Both teachers and pupils become uncomfortable, both deserve the strongest sympathy and neither gets it. The lazy teacher tries to show off, which adds to him the despicable trait of dishonesty and hypocrisy. The teachers seem to think that the visitor wishes to know how much the pupils have learned and not how they are being taught. This neglect of work is culpable when, as is often the case, the regular work ceases, to give place to show work and mere efforts to keep order until the visitor feels the unwelcome nature of his presence and leaves.

Wallage says ([88], p. 114) :

It is well known that many engage in teaching who have no conception of the demands which teaching makes upon them. They have grasped the coat-tail of the school because they needed the money or because they had nothing better to do.

Clasen ([16], p. 356,) complains of teachers who who "spoke English with a foreign accent." They were also lacking in correct speech, having used such expressions as "Where was you yesterday?" and "It is him again." He thinks that America's most pressing need is a better teaching force.

Progress has been made since this criticism was written. More attention is now given to professional training, but such progress has not been made as a result of popular demands. Even to-day we should hardly dare to put the question of the professional training of teachers to a popular referendum for and against. Certainly it would be impossible to pass a law in Congress or in any State legislature requiring all teachers to undergo a three-year course of professional training, yet such a requirement is made of all teachers in the leading countries of continental Europe.

The lack of professional training results inevitably in the absence of a true teaching profession. Höfer ([45], p. 645) says:

The lack of a teaching profession is due to a widespread idea that the practice of teaching is not a profession (*Beruf*), that it requires no special professional preparation. So it happens that, on the one hand, teaching is considered as one of the numerous occupations in which one seeks to earn a living for a while until something better offers itself and that, on the other, the professional training of teachers is not a general requirement.

Clasen ([16], p. 358) says:

There is no teaching profession. One rarely remains a teacher for life. The method of electing teachers is poor and the board members possess an insight which is not clouded by a knowledge of their business.

Beck ([4], p. 132) says:

There are not many teachers who look upon themselves as worthy but highly unfortunate priests of learning. The frequent changing of profession and the lack of a teaching profession which is followed as a life work shows this to be true. \* \* \* Interference from patrons, together with the principle of free self-development, produces pedagogical "Männlein," who bow down before the "lieben Kindelein" and who condescend to the basest sort of boot licking. The honorable schoolmaster of old times seems a moral giant in comparison with these "Schulmeisterweibern."

Walther ([89], p. 34) says:

In the interest of the American school system it is necessary to so raise the material position of the teachers that their work will not be looked upon as merely a stepping-stone to other occupations. \* \* \* The establishment of a unified teaching profession necessitates complete freedom from political influence and the provision of a general pension system when one is too old to teach.

These are the views of people who come from a country in which the teaching profession is on a firm basis. They seem too harsh at times, but undoubtedly there is much truth in them. America must better such conditions if the results of education are to become what they should be. How to do this in a democracy is as yet an unsolved problem. The European method is largely inapplicable in America because the impulse back of it comes "down from above." Our hope lies in a gradual creation of a public sentiment which will make possible better and more general training, better salaries, larger tenure, and more freedom for the teacher. More detailed consideration will be given to the last two elements later in the chapter.

In spite of the unsatisfactory professional standing of the American teacher, his social standing is better, in some respects, than that of European teachers. The criticism of Grandin ([36], p. 397) is typical on this point:

For the homes, the teacher is not the vague entity which he generally is in France, \* \* \* a being without substance and without name, whose influence will be of consequence only in mathematics, history, or chemistry, and

will not otherwise modify the imagination, the character, and the conscience of his pupils. In America teachers are respected and received into the homes of the people.

The English critics also give this type of criticism. They think that the American elementary teacher has a higher social standing than those of England because the English elementary schools are for the poorer classes only, while in America all classes attend them. In general, the criticism indicates that teachers are looked upon as social equals by the people but not as social superiors. This is as it should be in a democracy.

There is much difference of opinion in America as to whether teacher training should be academic or professional in character. This difference of opinion is reflected also in the criticism. Münsterberg, for example, favors the academic type. He says ([68], p. 53) :

My teachers (in Germany) had read no child study, had no reflective theories on aims in teaching. They were enthusiastic and they knew their subjects. They did not hastily learn one day what they were to teach the next. They were not satisfied with second-hand information. Every teacher had reached the level of the doctorate. They had perspective, which raises the most elementary material to the level of scholarly interest. Elements taken for themselves alone are trivial and empty everywhere, and to teach them is intolerable drudgery which fills the schoolroom with dullness and the pupils with aversion. \* \* \* I do not believe in lyrics which are written after the prescriptions of esthetics; \* \* \* the scholar in poetic theory ought not to make the poets believe that they need his advice before they dare to sing. \* \* \* The analytical tendency of the psychological and pedagogical attitude is diametrically opposite to the attitude, full of tact and sympathy, which we must demand of the real teacher. The training in the one attitude inhibits the freedom in the other. \* \* \* The one great reform needed in America is to provide teachers who are expert in their field, who have the perspective of it and whose scholarly interests fill them with an enthusiasm that inspires the class.

A good representative of criticism on the other side of the question is that of Dulon ([28], p. 238) :

How can this hurrying through an excessive amount of subject matter, this memorizing without clear understanding, this meditation without sufficient self-activity, this studying at the hand of and upon the words of a teacher, prepare the student for teaching and teaching efficiently? \* \* \* How can this dry philosophy make students adept in teaching, (an activity) which counts upon the precise knowledge of the mental processes as the most necessary of its principles?

Can the study of history prepare the teacher for the right use of this powerful means of education? Indeed, one must completely renounce all ideas of a teaching efficiency, which is truly grounded upon the tact of the teacher and the rights of the pupil, if one is to think of teaching in the limits of such narrow historical knowledge. Of pedagogy and its history, of school systems and their results, of the fundamental principles of education, of didactics and its secrets, of method and its laws, of the art of explanation and questioning, \* \* \* of all this there is hardly a mention in the colleges and universities

(in America). \* \* \* The conviction that colleges are competent to train teachers fundamentally is very widespread among the Americans. We know valiant normals schools which not long ago justified their existence, in that appropriate colleges were not at hand. \* \* \* Whoever has learned arithmetic can teach arithmetic; whoever knows history can tell these truths to others; whoever understands physics can without doubt instruct in physics. This appears to be the average opinion (in America).

That there is a circle of sciences which makes us familiar with the holy rights of the child, which tells us how we may stimulate or smother his powers, free or enslave his spirit, further or limit his development, stir up or suppress his self-activity; \* \* \* a circle of sciences which insures the children against mishandling by an awkward teacher and teaches us how to obtain a hundredfold higher result from our school time; \* \* \* to the fundamental understanding of which right methods of instruction are unconditionally related; \* \* \* of all this the greater part of the most educated Americans have hardly a faint suspicion.

These two criticisms are worthy of further consideration. The first represents the Prussian ideal under the empire. It is an effort to apply methods of procedure in the German gymnasium, with its highly selected and thoroughly homogeneous pupil population, to American secondary education in general. It suggests that secondary teachers should not reflect upon "theories on aims in education;" that their business is to teach rather than to think. The whole energy of the teacher is to be devoted to the mastery and impartation of knowledge within a narrow field. Outside of that field he is expected to swallow the predigested thought of the philosophical and political leaders. Münsterberg's teachers were not satisfied with second-hand information, but they unconsciously swallowed second-hand theories of education. All of this is implied in the system which Münsterberg sanctions, and that is one reason why his teachers were not in the habit of reflecting upon educational aims.

It is also suggested that a psychological and pedagogical attitude is utterly bad: that it means lack of enthusiasm, ignorance of subject matter, lack of perspective, tact, sympathy, and power to inspire pupils. Such ideas sound strangely to the American ear. Some of our teachers and efficiency experts are lacking in tact and sympathy, but to infer that the psychological and pedagogical attitude necessarily produces such a tendency among teachers and educators in general is clearly going beyond the limits of the truth.

Of more significance, however, is the suggestion that all teachers should have reached a high level of intellectual attainment, that they should be able to get knowledge at first hand, that they should have the perspective of the subjects which they teach. This is also what our educational leaders wish. But why should not education itself be one of the subjects in which the teacher can get first-hand information and perspective? Does not the teacher need perspective in

education, even more than in other subjects? The American educators would undoubtedly say "yes," but the American people as a whole would probably say "no."

Münsterberg's suggestion that teaching is an art will likewise meet with the approval of our educators, but the people as a whole seem inclined to deny it. Münsterberg indicates that poets need practice before they can become expert in their art, but he fails to see that his analogy leads directly to the fact that teachers also need preliminary practice.

Perhaps the analytical tendency of the psychological and pedagogical attitude may be, at times, opposed to the practical, sympathetic attitude; but is not the analytical tendency of the literary attitude much more inclined toward the same fault?

America does need teachers who are expert in their field and who have the perspective of it. The teachers of arithmetic, for instance, should know not only the ordinary details of the subject and the relative value of its various parts, but they should also know its broader relationships, its origin and growth, its relation to the other subjects, its function, and its contribution to human welfare and happiness. But all this is not enough. It is equally necessary that teachers should be expert in their art and conscious of the educational problem in its broader aspects. To create a public sentiment in favor of supplying both these needs is our task. Its accomplishment is a slow and difficult process, but there is hope for better things in the future.

Dulon wrote his criticism in 1853. A comparison of conditions in the United States at that time with those of the present will throw light upon the direction in which we are tending. It is no longer true that colleges and universities entirely neglect the professional side of teacher training. It is unfortunately true that too many normal schools are trying to become colleges, but public sentiment has at least developed to the point where all colleges and universities are compelled to give at least a nominal attention to education as a professional subject. We must guard against the neglect of practice in teaching and must labor in season and out to build up a public sentiment in favor of the professional side of the work.

Thus there are two chief obstacles in the way of improvement in teacher training. One is the belief that such training is unnecessary, and the other that the training is necessary but should be entirely academic. These major obstacles are the source of several secondary defects. Fitch ([32], p. 75) says:

America gives much attention to educational philosophy and psychology. This sometimes restricts the spontaneity and inventiveness of the students and leads them to suppose that all lessons of a given character ought to be shaped to one pattern and developed to one particular manner. The students

are too much enslaved by formulas. The young teacher is too much hampered by the fear of departing from the prescribed order. Such methods may be very logical and also very ineffective.

Here, again, we have the influence of the doctrine of equality. If all children were equal and alike, one stereotyped method would be sufficient. This belief in equality is so powerful that it influences, often unconsciously, even the critic teachers in our normal schools. Educational philosophy and psychology are taught and applied in an academic way.

The idea of individual differences in ability and interest is likely to be disregarded, because it is not one of our democratic traditions. The individual differences of both teachers and pupils must be taken into account. The single-pattern method of teacher training must be discarded.

The influence of the academic ideal in teacher training has also led to a disregard of facilities for practice teaching. There are few normal schools that are able to offer adequate facilities for such teaching. Armstrong, in the Mosely Report ([66], p. 15), says of Teachers' College of Columbia University:

I had hoped to find that in this college academic training had a certain bias imparted to it, but I was disappointed. I was also greatly disappointed by what I heard when attending some of the pedagogy classes; there was a high-flown air of unreality about instruction; too much precept, too little practice; \* \* \* no really severe practice \* \* \*. The whole appeared to me to be good illustration of the tendency that I seem to see in America to be guided by sentiment and emotion, and to work on academic rather than on practical lines.

Here we have a suggestion of conditions which are represented in every teacher-training institution. The academic influence is universally present. Only very recently has there been any evidence of the other method of approach. The universal tendency has been to teach the principles of education first out of the book. The course has begun with an academic study of general principles. We have preached the notion of proceeding from a concrete to the abstract, but our practice has been just the opposite. The application of education to the particular problems of the classroom has been made last, not first.

The high-flown air of unreality which Armstrong mentions is more apparent than real, since Teachers' College has always enrolled only graduate students who have in general had experience in practice teaching before they came to the institution. A danger arises, however, when normal schools over the country attempt to apply the Teachers' College plan, when undergraduate students only are concerned. Practicing or observing teaching in an elementary school attached to such institutions is far different from teaching in a real

public school. Working with the best equipment and under ideal conditions generally has not been all that could be desired as preparation for real teaching under actual conditions.

Several critics have also pointed out the tendency of theory to outrun practice. This is, of course, unavoidable but it should not be overdone. After all, practice teaching must prepare the student teacher for actual teaching situations, not for ideal ones. Ideal conditions are valuable, but such practice must always include a consideration of how to manage affairs when supervision and equipment is defective. The high ideals of the theorist must always connect with the ideals of the community in which the teacher is to work. The truly strong teacher is the one who is the most successful mediator.

It has been pointed out that principles of teacher training in America are often either absent or they are academic in character. It was also noted that as the conception of professional training began to develop the older academic ideal caused the emphasis to be on theory rather than practice. In England the reverse has been true. There the influence of the apprentice idea predominated, and as a result the pupil-teacher system has been the most important type of training. It is natural, therefore, to find some of our English critics commenting upon the absence of pupil teachers in our system. The English, however, do not mean to recommend the pupil-teacher system. In this connection Salmon ([79], p. 15) says: "I know the system (pupil teacher) is utterly illogical, but I also know that it has produced a race of teachers whose technical skill and power of managing large classes is unexcelled." The issue is rather clearly drawn between a professional training which is entirely theoretical and that which is practical. The true solution, of course, lies in a proper combination of the two elements. But one thing seems clear. The pupil-teacher system is better than no training at all. From this point of view; the cadet system under a good superintendent is justifiable in America as a substitute for something better. The danger, however, lies in the fact that the American belief in the principle of self-improvement is likely to cause the substitute type of training to be looked upon as permanently desirable. Hence its defects must never be lost from view.

Bramwell ([7], p. 3) says:

It would seem better to give purely professional training to teachers of higher grades, to encourage more specialization, and to allow all students some choice of method subjects so that dead forms of method might be made as few as possible. The system of giving detailed methods to all stimulates, too, a tendency to rigid forms of lesson giving, and somewhat encourages the idea that there is only one good arrangement of subject matter for a particular lesson and one good way of giving it.

This criticism seems to apply quite generally, and it is not clear why Bramwell restricts it to the upper-grade teachers only. At any rate the danger is clear, and it is one that is peculiarly discordant with American ideals. A system which leads to stereotyped procedure is utterly at variance with the American belief in unlimited perfectibility.

On the other hand, a system of training which is composed of theory only is also likely to degenerate into formalism though to a less degree. Thus we come upon another reason why teacher training has not prospered in America. The type which we have had has failed to lead to further improvement. Trained teachers have fallen into ruts quite as badly as the untrained.

This defect has been in part due to another condition which Bramwell ([7], p. 38) points out:

To allow a beginner to feel that he has completed a course in science in 13 weeks is to encourage superficiality and to arouse in him a feeling of satisfaction and attainment. Surely nothing can be more opposed to the true spirit of science.

The real source of the difficulty seems to lie in a conflict between two of the fundamentals of American educational philosophy. The doctrine of equality leads to the conclusion that the training of teachers is unnecessary, while the doctrine of improvability says that the teachers' capacity for improvement is unlimited. The present type of teacher training conflicts with both principles. Although it holds that teacher training is necessary, it yet fails to provide for the growth of the teacher after he has finished the course.

It has been suggested, on page 49, that a great many teachers in America are without professional training. Some of the reasons for this condition have already been suggested, but a further reason remains to be mentioned. Normal schools have not trained secondary teachers. Bramwell ([7], p. 55) says:

The normal school more than any other institution has adhered to its old traditions. It was designed to train teachers for the lower grades of the elementary school, and in the early days was prepared to accept the only material at hand—would-be teachers, many of whom possessed few intellectual qualifications, and most all of whom were inadequately prepared for training. But with rising standards of work the normal school has not yet closed its doors to students whose general attainments do not qualify them to profit by courses in the science and art of teaching. Admission standards are kept low. College graduation is not insisted upon as a requirement for entrance. As a result most of the teaching in high schools is in the hands of professionally untrained teachers.

This difficulty has been relieved greatly in recent years by departments of education in our universities, but they are not preparing the required number of high-school teachers. In another respect, however, the outlook is still far from satisfactory. The normal



schools still "admit students whose general attainments do not qualify them to profit by courses in the science and art of teaching." The idea of making graduation from college a prerequisite for entrance to the normal is as yet undreamed of. We feel that we are doing very well when we require only the completion of a high-school course. Worse still, there is considerable recent evidence to show that in many normal schools the pupils who enter are low in intelligence. It is difficult to imagine a betterment, particularly in the rural schools, until this condition changes. Yet there is an amazing indifference on the part of the people and on a part of the educational leaders, which is discouraging for the future. Little effort is being made in general to suggest a remedy. It is certainly high time that this most serious matter should receive the thorough study which it deserves.

Not only have the normal schools failed to prepare high-school teachers, but, as Fletcher, in the Mosely Report ([66], p. 144) points out—

The total output of the normal schools is hardly one-fourth of the supply needed.

This statement is too generous. As a matter of fact even before the war the normal schools were probably turning out not more than one-fifth of the teachers needed annually in the elementary schools. Thus the normal schools have not been able to justify their existence as such. They have admitted too many pupils who did not expect to teach. The purely academic influence has prevailed to a remarkable degree. Too much time has been spent in trying to imitate or replace the college and the high school.

This also is partly due to a desire to work up a large attendance in order to secure more adequate appropriations, though this motive sometimes masquerades under a pretense at serving local needs. The real cause of the whole trouble is the fact that the American people have not believed in the professional training of teachers.

Since no strong public sentiment in favor of normal schools was in existence, such a sentiment has had to be produced. This is a very slow process and requires much patience. But normal school presidents, like other Americans, like to see things happen rapidly. Hence there has been a tendency for theory to outrun practice as has been suggested on page 55. The normal school graduates are therefore likely to have a superior attitude, particularly toward the rural community into which they go. They have often tried to foist upon it ideals "handed down from above" for which the people were not ready. The principle of equality allows no place for such a practice and it tends to injure the normal schools in the public favor.

Since the American people do not want professionally trained teachers they usually refuse to provide adequate financial support for teacher training. Salaries of normal-school presidents and teachers are low. The best type of teachers will not teach in a normal school very long, and we have, as Clasen ([16], p. 358) says, "Normal-school teachers who know nothing but what is in the textbooks."

The faculty members are interested only in the narrow circle in which they move. The presidents often feel that the large questions of policy and organization are not safe among people of such narrow outlook. They therefore tend to become autocratic even more than do the superintendents.<sup>1</sup> Provision for growth on the part of faculty members is not at hand, and autocratic presidents are apparently anxious that their faculties should not be more than mere teaching machines. A progressive faculty, wide awake as to the larger needs of normal schools, might prove embarrassing.

Such are some of the problems of teacher training in America, with the complex causes which lie back of them. The whole question constitutes a vicious circle. The service is poor because the financial support is meager, and the financial support is meager because the service is poor. The presidents and boards can not employ better teachers because they have not the money, while the people refuse to furnish the money because normal schools are not generally efficient.

But there is a brighter side to the situation. The fight for better normal schools has been going on for 75 years. The academic idea is slowly but surely passing, and there is a growing feeling among the people that school-teachers know just a little more about their business than the man in the street does. Trained teachers are scarce; but whenever one of them is replaced by one who is untrained, the community soon senses the loss. More professional knowledge is being required of those to whom certificates are given, while recent scientific progress is making such knowledge more and more valuable. The recognition of individual differences is growing, and this is one of the best antidotes for the rigid and stereotyped methods of the untrained teacher. Normal schools are beginning to provide opportunities for real practice teaching. Field representatives are being appointed, and normal-school faculties are visiting in their districts to see that theory does not outrun practice. The crowding of the curriculum is being relieved by the provision for three and four year programs. Efforts are being made to help the teacher in the service, and more teachers are taking advantage of such provisions.

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<sup>1</sup> See p. 46 and p. 63.

The need for more teacher-training institutions to help supply the annual deficit has been partially met in a temporary manner by the establishment of teacher training in high schools and there is hope of a more cooperative activity among and within the normal schools. The history of these schools has been a story of continual struggle. Public sentiment grows slowly but it does grow. This growth is likely to be accelerated in a time of reconstruction such as this. It is well to remember that genuine progress in a democracy comes only after a long period of apparently hopeless plodding. But when it comes it comes quickly, easily, and almost unexpectedly. The solution of the normal-school problem is perhaps nearer than we think.

Normal schools have been criticized because they do not provide for the growth of the teacher after graduation. This does not mean that there are no such provisions. They exist independently of the normal school. An example of this type is reflected in the criticism of Mark ([64], p. 238) :

A very striking feature of American school life heightening its normal value alike by the interest it engenders and by the intelligence and progressiveness of spirit which naturally flows from it is the continuous training of the teachers at the hand of the city superintendents and special supervisors, the wide reading of educational literature by the teachers, and their extension and correspondence work.

The last of these applies only to undergraduates who have not finished their work and is, therefore, not the same type as is represented by the first two. The training which the teacher gets while at work and through reading is by far the most important part of teacher training as it now exists in the United States. The danger involved lies in the fact that the superintendents and supervisors are often incapable or unwilling to do this sort of thing well. But, even under such conditions, the association with experienced teachers in the same building undoubtedly exerts a strong influence for good upon the beginner. The success of this type of training has the advantage of direct contact with real problems. Furthermore, it may easily continue from year to year and thus coincide with the ideal of indefinite perfectibility. The favor which this practice received is undoubtedly another cause of the indifference to normal-school training, especially when the latter leads the student to believe that graduation means the completion of his education. It would be a mistake, however, to hope, through such measures, to supplant the teacher training as given in special institutions. As a provision for continued growth after graduation association with good teachers is excellent, but as a substitute for undergraduate work it is a makeshift. It is needless to say that it can not operate in the one-room rural school.

Compayré ([22], p. 144) favors the teachers' institute because it, too, provides for further growth.

They (institutes) keep the teachers wide-awake, prevent them from falling into ruts of routine or trusting to their own individual experiences, and summon the teachers incessantly to supplement their knowledge and revive their enthusiasm.

Mark ([63], p. 23) says:

A notable feature in educational development is the remarkable desire for self-improvement among teachers. There are continual teachers' meetings. The teachers do not consider themselves trained after having spent one, two, or even three years in a normal school. Education is recognized as a progressive science with which practice must endeavor to keep pace, whereas, 20 years ago, there were many, even among educators, who scouted the idea that there was anything new to be learned in teaching. The teacher is now coming to look upon her work as a means for her own development, as well as that of the children, and she does not limit her knowledge to the mere command of the tools of instruction appertaining to her special grade.

This criticism is, in part at least, a contradiction to that of Miss Bramwell on page 55 where she suggested that normal-school graduates are likely to fall into ruts. Between the two statements the evidence would probably support Miss Bramwell. In fact, the general run of American teachers are not noted for their strong desire to attend teachers' associations. The fact remains, however, that these associations are doing much to stimulate professional enthusiasm. In fact, the very existence of voluntary teachers' associations is a source of wonder to many of our critics. Fitch ([31], p. 112) calls attention to an interesting characteristic of American teachers when he says:

There is remarkably little discussion of how to obtain professional influence outside of the profession itself. Public opinion, after all, evinces a true instinct when it shows, as it always does, a certain distrust of trading and professional associations, obviously designed to keep up the scale of remuneration, to assert corporate rights and privileges, or otherwise protect class interests. It has a suspicion that these interests are not necessarily or always identical with public interests in general. The creation of a corporate spirit is a good thing, but it may go too far.

This criticism is interesting in its suggestion of what teachers' associations should not do. Recently these associations have been sorely tempted to depart from their traditions and form teachers' unions, but experience has already proved this to be an unwise plan, even when salaries are almost below a living wage. Increases have come and will come, not because the teachers need them, but because the children need better teachers. The best means to extend the influence and increase the salaries of teachers is to increase the enthusiasm and the efficiency of the teachers themselves.

Of all teachers' associations the National Education Association is the largest and most influential. As such, it receives much

favorable comment. Barneaud's estimate of its work in 1878 was given on page 14. For convenience, it is quoted again here a little more in detail. He says:

The work of this association presents an interest more lively because membership in it is optional only and because its work is not at all possible in any other country than the United States. That good and fruitful results have been attained by the association is not astonishing to those who believe in the value of everything which calls for individual responsibility and freedom of choice. It is the National Education Association which leads America toward progress.

A few adverse criticisms are also offered. Schmidhofer says ([82], p. 68):

The American teachers' association does not bloom forth as one would expect. The teachers are too much divided among themselves and do not have sufficiently common aims and as a result the respect of the people is not increased.

Findlay ([30], p. 443) thinks that the programs "reveal remarkable fluency in the use of technical language rather than real depth of thought."

Buisson ([10], p. 634) believes that "pedagogical organization is not in the hands of the teachers but in those of the administration."

The National Education Association has its faults, and they include the ones which are mentioned, but the fact still remains that our teachers' associations and the spirit which makes them possible are invaluable assets in the solution of our educational problems. They are particularly valuable as a means of promoting the growth of the teacher while in the service.

Another means of such growth is that furnished by our pedagogical literature. Yet this literature hardly deserves to rank equally with that of Europe. This is particularly true of our pedagogical magazines. Klemm ([48], p. 56) says:

The educational magazines offer only baby food—all sorts of petty methods, plans, and devices—but of fundamental educational and instructional principles and of methods which grow out of such principles there is rarely a word.

While our magazines are not what they should be, they are not quite so bad as Klemm thinks. They contain some articles of fundamental value, at least enough to make the phrase "rarely a word" inadequate. Many of them also contain what Klemm calls "baby food," but this is not necessarily a defect. Such magazines are for the purpose of helping the untrained teacher. They do right when they descend to her intellectual level. They will be needed as long as the untrained teacher is permitted to teach. But they should be considered as a means to an end and not as an end in themselves. When the United States catches up with Europe in the matter of trained teachers such magazines will not be needed.

One encouraging feature concerning the training and growth of teachers is noted by a number of critics. For example, Rathbone, in the Mosely Report ([66], p. 259), says:

I was struck with the cultivation and refinement of the teachers, their enthusiasm for their profession, and readiness to better equip themselves. \* \* \* There is much improvement to be desired, but no one recognizes this any more than the teachers themselves.

This is a very important effect of the generally progressive spirit of America. It seems fundamental in its nature and therefore able to withstand even the discouragement of low salaries. Its importance can hardly be overestimated because it is one of the corner stones upon which an adequate system of training teachers in the United States will some day be erected.

#### ACADEMIC FREEDOM.

The question of the freedom of the teacher is a live one in the minds of our critics. Some of them suggest that the American teacher possesses more freedom than the teacher of Europe, but others see the matter differently. All agree, however, that the American teacher's association has freedom so far as governmental interference is concerned. This is not always the case in Europe. Schmidhofer ironically says ([82], p. 67):

Here (in Austria) wherever two or three are gathered together in order to consider a serious general interest, there is sure to be a police commissioner in the midst of them. Our assembled life enjoys the most affectionate attention of the police. At the least overstepping of the statutes the sword of Damocles threatens to be loosed. Almost every word which is uttered in public is measured before it passes.

From this type of interference we are happily free.

Foster, in the Mosely Report ([66], p. 115), says:

It is a fundamental principle in the American universities that the man who is fit to teach is also to be trusted to examine his own students. The examiner and the external examination is practically unknown in the United States. The teachers are free and being free they are enabled to give to their courses a breadth and depth that would be impossible, were they hampered by the knowledge that their students were to be tested by examiners who know little or nothing about them.

This criticism is true for the universities and also for the elementary and secondary schools in most States. The whole problem of the external examiner is discussed more fully in Chapter V.

The principle of local control has also tended to increase the teacher's freedom. Salmon ([79], p. 3), thinks that such control

fosters the American tendency to try new methods. Fear of an inspector would prevent an English teacher from effecting a radical change in method. And if the inspector and teacher should agree on reform, the fear of the central authority would deter them both.

Miss Burstall, in speaking of the Horace Mann School, says:

The personality of the teacher has free play to develop, improve, and vary the work from time to time. There is no iron hand of the city superintendent to crush initiative.

Thus the American teachers are entirely free from Government interference and largely free from external examinations. But, as suggested by Miss Burstall and as mentioned in Chapter II, there is another side to the question. American school superintendents and school officials in general are often despotic. Kerschensteiner ([47], p. 7) thinks that—

Germany has a great advantage over the United States in that the independence of the teacher is incomparably greater. He can be deprived of his position and livelihood only for neglect of duty or violation of the law. When sick he continues to draw his pay. When too old to teach he draws generally 75 per cent of his salary. Whether he is liked or not by the board and by the inspectors has nothing to do with his livelihood. He is free from the anxiety that occasionally handicaps his American colleague. He does not need to curry favor with his superiors, much less with the citizens of the community, and in case of sickness or other misfortune he does not have to use up his strength to the point of exhaustion.

Langlois ([52], p. 158) says:

American teachers are employed for a short interval only. They are at the mercy of unreasonable demands and local intrigues. \* \* \* School discipline suffers in America because the pupils know very well that the teacher can be removed from one day to the next if she does not please the public, of which their parents form a part. If teaching is not yet a regular profession in the United States it is not alone because of low salaries, it is because of the absence of security and independence.

The criticisms of Kerschensteiner and Langlois suggest several problems which will be discussed under other headings. The point to be noted here is that the American teacher lacks freedom because of his insecurity of tenure and his lack of support in old age. Langlois is, of course, wrong when he says that "teachers can be removed from one day to the next," but they can be and are being removed from one year to the next under the conditions which he mentions.

Kerschensteiner also calls attention to another respect in which teachers lack freedom. He ([49], p. 9) says:

The affairs of education are of too delicate a nature to allow those who are intrusted with their execution to be allowed to differ too loudly or too openly from the political and religious views of those who have employed them. This is just as true in the freest democratic nations as in constitutional monarchies. Any teacher in the United States who in public meetings or in the classroom would push a vigorous campaign in behalf of an absolute monarchy would feel as little security in his tenure as a German teacher who in like manner advocated the abolition of absolute monarchy and the introduction of a pure democracy.

Thus we come again to emphasize a point already mentioned. The teacher's ideals must not be too divergent from those of the community. There must be a strong connecting link between them. The freedom of the teacher must be curtailed in so far as it means freedom to teach ideals which are fundamentally different from those of the Nation. This does not mean that teachers should not try to elevate the ideals of their community. The latter is a difficult but worthy task. It must be done gradually and with due regard to the beliefs and prejudices that prevail. This limitation affects teachers particularly, because they deal with the children when they are in a very impressionable age, and are still lacking in reasoning ability and power to judge.

In still another way the freedom of teachers has been limited. Compayré ([21], p. 457) says:

They (the Americans) have decided to exclude married women from teaching in the schools. Young America thus revives one of the most foolish traditions of the old university of Paris, where celibacy was obligatory. Why this exclusion of married women? They give as a reason that she has a husband to support her and that she has not the need to make her own living as the maiden lady has. \* \* \* The real reason is prejudice. \* \* \* It seems quite strange that Americans should be compelled to recall to their fellow citizens such truths as "Marriage does not disqualify a woman," that "Every human creature has a right to life, liberty, and the pursuit of happiness, and when she is healthy and sound a natural right to marriage."

This criticism is doubtless justified, though conditions in Europe are fully as bad in this respect as they are here. Most countries have had a prejudice against permitting married women to teach. Such general prejudices usually have good reasons back of them which a groping humanity has vaguely sensed. Doubtless such reasons exist in this case also. The factor in any final decision, however, must be the welfare of the children. From this point of view there seem to be very good reasons why married women should teach. If they have raised children of their own they are likely to be better qualified to teach the children of other people. Then, too, marriage tends to increase the stability of the teacher. Repressed desires connected with celibacy tend to cause unrest. The married teacher is more likely to be satisfied with her position and is therefore more permanent in the system. She is more likely also to have a strong and beneficial influence in the community. Therefore the present tendency to employ married women as teachers seems to be a movement in the right direction.

In a very important sense the value of the teacher's service is conditioned upon the amount of his freedom. Leobner ([58], p. 19) says: "The freedom of the school goes hand in hand with the freedom of the teacher."



One of our most cherished ideals in America is the development of free personality in the children. The hope of the realization of this ideal seems to be a forlorn one unless the personality of the teacher is free. Those who are not free themselves can scarcely develop a desirable type of freedom in others.

One of the most common criticisms concerning the American school system is the predominance of women teachers. Höfer ([46], p. 644-645) says:

In the face of the fact that almost all of elementary school instruction is in the hands of women teachers, one can not keep from asking what will be the effect on the permanence of the Nation when boys over 10 years of age receive only this type of education?

Armstrong, in the Mosely Report ([66], p. 13), says:

It seemed to me \* \* \* that the American boy is not being brought to punch another boy's head or stand having his own punched in a healthy and proper manner; that there is a strange and indefinable feminine air coming over the men, a tendency toward a common, if I may so call it, sexless tone of thought. \* \* \* Women can not in general compete successfully with men. They are indefatigable workers and have shown that they can pass examinations with brilliant success. But what has been the character of the examinations? Almost invariably they have been such as to require the reproduction of learning, not original effort; it proves the sex to have been lacking in creative and imaginative power. Those who have taught women students are one and all in agreement that, although close workers and most faithful and accurate observers, yet, with the rarest exceptions, they are incapable of doing independent, original work. And it must be so. Throughout the entire period of her existence, woman has been man's slave; and if the theory of evolution be in any way correct there is no reason to suppose \* \* \* that she will recover from the mental disability which this has entailed upon her, at least within any period which we for practical purposes can regard as reasonable. Education can do little to modify her nature. \* \* \* From this point of view women teachers must be for most purposes relatively inefficient; and as teaching is an occupation in which, more than any other, imaginative power, individuality, insight, and originality are wanted, it is important that men rather than women should exercise the predominating influence.

American men will scoff at the idea that they are lacking in manhood because they had women teachers, and experience has not borne out the truth of such a statement. The statement that women can not in general compete with men is also of very doubtful value. There is some evidence that women are lacking in originality and individuality, but they undoubtedly excel in patience and capacity for details. These qualities are perhaps of as great value in teaching as are the more masculine ones. The suggestion that education can do little to modify the nature of women is undoubtedly false. Armstrong reaches a wrong conclusion because his argument is based on the theory of acquired characteristics. Woman has been man's slave, but that does not prove that she will always be so. No doubt women

are too submissive at times, but that may be due to social rather than to biological inheritance. When the social restrictions are removed it is hard to see how the biological inheritance will keep women submissive, because in reality women have the same biological inheritance as men have.

A slightly different point of view is shown by Klemm ([48], p. 45) :

The women teachers, well meaning and motherly as they are by nature, help the pupils too much with their difficulties instead of stimulating their self-activity. The passion of the female sex for self-sacrifice is a real hindrance to genuine fundamental instruction.

On the other hand, some of the criticism favors the woman teacher. Siljestrom ([84], p. 186) says:

It sets men free for the harder tasks of life. Women perceive more quickly. They are more conscientious, punctual, patient, persevering, and are therefore more able to stimulate these qualities in others. They bring a home atmosphere into the schools. School management is also an excellent preparation for the management of children in the family. They can also be hired for less salary.

Laveleye ([56], p. 350) says:

The teaching of women has less pedantry and more patience, imagination, and gentleness. The school is no longer the somber prison bristling with punishment and ennui which the child dreads. It has acquired a home atmosphere.

Grasby is in general opposed to women teachers yet he says ([37], p. 234) :

Where education is worst, the proportion of male teachers is the highest; while in centers where it has made the greatest progress, and where the schools are the most efficient it is becoming a curiosity to find a male teacher in the primary or grammar grades.

One fact is noticeable when the criticism for the woman teacher is compared with that which opposed her. The former is older than the latter. The former points directly to one great contribution of the woman teacher. She has brought the home atmosphere into the school. It also points toward her undeniable superiority in the lower grades of instruction. The older criticism belongs to the period following the Civil War when women first began to teach in large numbers.

The more recent observations are a protest against the disappearance of men from the teaching profession. While we may disagree with the argument, we must approve of the conclusions. There is something radically wrong when so many of the boys of America finish high school without having had a male teacher. Brereton ([8], p. 295) says:

Woman's power lies in an appeal to boys to respect her sex, if she does not still further rely on her natural attractions as a woman. The male teacher sets before his pupils the necessity of obedience for the sake of obedience, of loyalty to an ideal and not to a sex, of reverence for the strong rather than respect for the weak.

Ravenhill ([72], p. 410) thinks that—

Woman's instinctive insight, sympathy, and natural wisdom and morality need leavening with the harder logic, more active critical powers, and broader views of man.

These criticisms seem to be valid; and the question arises, why are so many women teachers employed? A great many of our critics say that the reason is an economic one. Home girls can be employed for the home position at a very low wage, because they are partly supported by other members of the family. When teaching away from home, they may be had for less money than it takes to employ a good man teacher. While all this is true, there must be some more profound reasons why school patrons will tolerate women teachers in greater numbers than would be tolerated in other countries. Some possible reasons have already been suggested in the criticism of those who favor the employment of women. Perhaps the chief explanation of the present state of affairs comes from a conflict between two of the profound national beliefs. On the one hand, the belief in equality is being gradually extended so as to include women as well as men. This is a phase of the woman's rights movement, and it has manifested a tremendous growth during the last century. Waetsoldt says ([86], p. 28) :

Woman is a national luxury in America, and her claims and inclinations meet little opposition in state and society \* \* \*. She is accustomed to be recognized and considered as the equal of man.

On the other hand, the ideal of the monarchical form of the family, in which the word of the father was supreme and universal, is gradually losing its ancient strength. The first force sanctions the employment of women teachers, particularly when they can be had for less money, while the second makes it very difficult for adolescent boys and young men to submit themselves in school to what they look upon as "petticoat rule."

The difficulties resulting from the preponderance of women teachers arises out of these two conflicting forces. But since one force is growing stronger while the other is growing weaker, we may expect the preponderance to continue while the lack of adjustment between the women teachers and their boy pupils is likely to grow less. This also helps to explain the apparent anomaly of a Nation which has so strong an interest in education refusing to pay sufficient salaries to keep men in the teaching profession.

#### TEACHERS' SALARIES.

It has been pointed out that the preponderance of women teachers arises, in part at least, out of the fact that salaries are low. Low salaries are also responsible for much of the poor teaching, for the

lack of trained teachers, for the transient character of the teaching population, and the lack of a teaching profession.

On no point is there more adverse criticism than that of teachers' salaries. Beck ([4], p. 111) says:

Seven hundred and thirty-six dollars is the salary of the average teacher in New York State. That is not much in a land in which household servants receive \$220 to \$300 per year and where a tailor-made suit costs \$35. Every man who can seek a position in which he can earn more money. If he remains a teacher, he suffers the odium of being looked upon as an incapable; for the American does not conceive of an idealism which renounces the goods of this world in order to become and to remain a teacher.

The figures which Beck gives are not out of date and the actual conditions are very much worse. On the other hand, the suggestion that Americans in general can not conceive the idea that teachers should renounce worldly goods in order to teach is still true. As was said in Chapter I, the American environment has been such that the ideals of self-realization work out mainly in terms of money making. The general public is fairly familiar with the working of the law of supply and demand in economic matters, and it is quite natural that they should apply it to teachers' salaries. The prevalent attitude on their part, therefore, is to expect the teachers to seek more remunerative employment in some other line of work if they feel that their salaries as instructors are too low. Those who prefer to stick to their profession are quite generally looked upon as incompetents. The idea that teachers should deny themselves the comforts of life because of their devotion to the cause of education is incomprehensible to those who secure self-realization through participation in economic activities.

The evils resulting from such a situation are pointed out by the critics. Gray ([38], p. 154) says:

At present strong evidence, negative as well as positive, is forthcoming to show that many who are disposed by character and love of the young to enter the teaching profession are deterred by the lack of financial reward.

Dunker ([29], p. 40) says:

The teachers are poorly paid and have no old-age or retirement funds. Men who can and wish to do something else leave the profession for more remunerative ones.

Klemm ([48], p. 60) says:

A teacher with insufficient salary gives only a minimum of his strength to his work, and I am the last to blame him for it.

Rathbone, in the Mosely Report ([66], p. 259), says:

People everywhere, and not least in America, are likely to estimate the importance of a man's work at the price which it commands. That a people who are so generous in the expenditure on school buildings should not be more

liberal to their teachers is surprising and disappointing. It is to this false economy more than anything else that the difficulty of getting a sufficient number of capable male teachers is due.

Waetzoldt ([86], p. 566) says:

The teacher is a poor day laborer who earns his bread in sorrow and fear of the Damoclean sword of loss of position which hangs over his head.

The foregoing criticisms are typical of a great number. The whole question is very complex and the outcome is not yet clear. The danger, however, is quite evident. The tendency to leave the whole question to the law of supply and demand is an impracticable one. An essential element in the working of this law is that of time. It requires time for the demand to stimulate an increased supply, and even after this occurs it will take from 5 to 10 years to provide the necessary experienced teachers. But during all this time millions of children are growing up in ignorance and are being deprived of their rights to an education. Thus untold loss results to the Nation.

From one point of view, the critics may not be justified in their contention. Teachers' salaries are low everywhere. European countries are not guiltless in this respect. But they have provided pensions and permanence of tenure for the teachers. No doubt many American teachers would be willing to sacrifice themselves in the present emergency if they were not afraid of poverty in their old age and premature loss of position. An adequate pension system is sorely needed.

But the most perplexing question is that suggested by the critics of whom Rathbone is a type. "How does it happen that the Nation which is in all the world the most generous in educational matters should be so parsimonious to its teachers?" Several of the critics raise the question, but none suggest the answer. There is a tendency to blame the people of the United States for this condition. Whether or not such reproach is deserved depends upon the point of view. The majority of the American people will doubtless resent, or at least ignore, such censure. They argue that if good teachers are to be had cheaply, the school board would be false to its trust if it did not hold salaries down to lowest possible level. Furthermore, the doctrine of equality makes the American distrustful of experts. He employs one only when he is compelled to do so, and he begrudges the money which he spends in that way, particularly when the income of the expert is known to be greater than his own. Having little use for experts as such, he refuses to pay adequately for expert service on the part of the teacher, particularly if the teacher happens to be a single woman. He is strongly opposed to paying her a monthly salary that is as large or larger than the income of school patrons who have families to support. In the case of the school-

house and the equipment conditions are different. He compares his income with the teacher's income, but for evident reasons he does not compare his home and its equipment with the school plant. Therefore, he gladly votes the money to construct a school palace, but refuses to pay relatively large salaries unless compelled to do so.

It thus happens that America is parsimonious with its teachers without wishing to be so, and the salary question, instead of being a simple phenomenon, becomes a symptom of the fundamental conflict between the spirit of nationalism and the doctrine of equality. The former calls for the best teachers possible, while the latter prevents the payment of salaries adequate to employ and hold them. The remedy lies in emphasis upon the value of good teaching and in the improvement of the service rendered, rather than in censuring the people for parsimony. Expert service will come into its own in the long run, but in order to do so it must avoid all suspicion of class distinctions.

Closely related to the question of salaries is that of tenure. Most of the critics look upon the uncertainty of tenure as an evil, though one or two see advantages in it. Siljeström ([84], p. 133) says:

The insecurity of tenure forces the teachers to make good continually. When we see how frequently persons who hold such positions have disappointed the expectations raised and how soon they sink into a state of apathetic indolence, we can hardly find fault with the regulation \* \* \*. The enactments of the American law on this subject are therefore well-formed, and no doubt contribute greatly to maintain an active spirit among teachers and to make them circumspect in their conduct.

This again calls attention to a very important problem in America. Teachers do tend to grow apathetic and lifeless. Some means must be provided to enable them to continue to grow. It may be better to bring in annually a host of new teachers who are young and enthusiastic than to retain those who are utterly dead and out of touch with the spirit of youth. But this is a crude method. It would be much better, and the children would be much better taken care of, if a host of new ideas could be introduced without changing the teachers.

Before indorsing the idea of rotation in office for teachers in order to secure progress it is advisable to look into the disadvantages of such a plan. They are reflected in no uncertain manner in the criticism. Laporte ([55], p. 45) says:

American teachers have less initiative because they change positions so often. This has led by force of circumstances to very precise regulations for the application of school laws and detailed courses of study indicating for each kind of school, each class, each division even, for each term, if not for every month, the material which is to be taught in the different branches. The textbooks are chosen by outside authority; \* \* \* nothing of importance is left to the initiative of the teacher. He is not allowed to try experiments in teaching.

Such experiments are almost always looked upon as irreparable loss of time. He finds on arriving at his school that a way has been completely traced for him and traditions to which he must conform. \* \* \* Books and methods remain, while teachers change.

Grasby ([37], p. 231) says:

The transient character of the teaching population is a defect because the hearts of the teachers are not in their work. The best people quit the profession. Of those who continue, some do so because they love the work, while more continue because nothing better turns up. The latter class forms the drag that hinders the progress of educational reform.

Schlee ([81], p. 544) says:

Owing to the frequent changing of teachers the normal schools can not nearly meet the demands made upon them for trained teachers.

All three of these criticisms go to prove that the practice of changing teachers in order to secure progress defeats its own end. In reality it leads to a rigid system of rules and courses of study. It causes the better classes of teachers to quit the profession and it prevents the growth of a real teaching profession because an adequate number of trained teachers is not to be had.

The frequent changing of teachers is therefore an evil, which must be removed. But its removal necessitates a consideration of the causes which produce it. These causes are not hard to find. One of the most important of these is given by Griebisch ([39], p. 2):

Most of the women teachers follow their calling only until the haven of marriage shines upon them. They are a disadvantage to the general development of the school system, and they interfere with the more profound working of the school.

Schlee says ([81], p. 544):

The business atmosphere of America causes men to quit the teaching profession. Poor salaries, the lack of pensions, and the lack of sick leave make teaching unsatisfactory.

It has already been pointed out that teachers also suffer from certain repressions of fundamental instincts. The teacher who is denied all opportunity for initiative in an autocratic organization is sure to rebel if he or she is truly worthy of the name of a teacher.

From a practical standpoint, the absence of a suitable boarding house and of opportunities for social life are important causes of the roving tendencies of teachers. This is particularly true of rural districts. These are the main reasons why teachers voluntarily leave their positions. To these one must add the influence of those forces which compel teachers to move, such as failure to secure reappointment. This is due partly to political influences and more largely to the tendency of the American people to judge their teachers on the basis of what the pupils say concerning them.

All of these causes may be removed. A teacher who marries can be encouraged to continue teaching. Salaries can be raised; pensions can be provided. Suitable boarding houses and social life are not out of the question. But the most important thing of all is to get rid of the idea that the teacher is a machine to be controlled by a lever in the hands of autocratic officials. Such a situation will always make it impossible to keep intelligent and ambitious teachers in the schools. The belief in the freedom to develop one's personality is fundamental in America. But the avenues for such development lead in the wrong direction. The ambitious teacher must seek to rise to a higher grade or she must aim at administrative work. Thus elementary-school teaching suffers. The elementary teachers spend their time studying secondary education or administrative problems instead of specializing in elementary education.

Such a situation is, undoubtedly, undersirable, yet Beck ([4], p. 116) sees a good side to it:

A school system in which the school itself helps to remove the bounds which separate one type of school from another and makes the change from one to another possible, I consider an eminently valuable arrangement.

From the standpoint of the teacher this is true, but from other points of view it leads to a lack of permanence of the teacher in one position. To remove this tendency and to provide for growth on a given level is one of our most pressing problems. The most promising hope for a solution seems to lie in providing more freedom for experimentation and in a stimulation of professional spirit on the part of the teacher.

### THE TEACHER'S LOAD.

The teacher's load also has some effect upon her tenure. Most of the critics seem to think that the American teacher has greater burdens to bear than those of other countries. Klemm ([48], p. 54) lists the peculiar difficulties of the American teacher as compared to the teachers of Germany. He believes the work of the American teacher is more difficult for the following reasons:

1. The heterogeneity of the people, due to immigration.
2. The tendency of the people to move about so frequently.
3. The irregularity of attendance.
4. The shortness of the school year as compared with that of Germany.
5. The English language is more difficult than the German.
6. Our system of weights and measures is more difficult to teach than is the metric system. He estimates that this sets us back a whole year.
7. The school is used as a hospital for all of the errors of society, for all of the defects and crimes in the State, and for all of the diseases of the social structure.
8. The various social and philanthropic agencies expect too much of the teacher.



Some of these burdens may be removed, but some seem unavoidable. The irregularity of attendance and the shortness of the school year may be, and are being, dealt with. Movements toward simplified spelling and simplified weights and measures spring up occasionally, but so far they have done little to relieve the burden to the teacher. The freedom of the people to move from one place to another is deeply grounded in American traditions and will never be given up. The standardization of all of the schools so that those who move during the school term may enter another school without loss seems to provide the main hope of betterment, though there is undoubtedly a sentiment which favors moving between school sessions rather than in the midst of them. On the whole, however, the conditions of economic life and the belief of personal freedom to move will make it impossible to lighten this burden to any great degree.

It also seems necessary for the school to shoulder the burden of assimilating the immigrant, and that of the moral training which is necessary to the remedy of social defects. Other organizations are doing and will continue to do what they can, but all indications point to the fact that the school must continue to bear the chief burden.

Thus it seems that the American teacher is to-day carrying a greater burden than the teacher of any other country. In spite of this, however, individuals and social organizations seem to be demanding more and more of the teacher's time and efforts. Many of these movements are thoroughly commendable and the school can render great service in popularizing them. Yet there is a limit to what the already overburdened teacher can do.

Some of the critics concentrate their attention alone upon the overburdening of the university professor. Foucher ([34], p. 192) tells how the class period of one professor is broken into by calls over the telephone "either from the Metropolitan Museum, from a buyer of antiquities, from some curious idler for information concerning some manuscript or other, some object of art, or simple trinket in the realm of India or Persia." From this he concludes that "the Americans have the very clear and marked impression that university professors are at the service of the public."

Foucher ([34]), p. 193) also says:

If one adds to the already manifold teaching duties the demands of life in the great cities, one may conceive that our colleagues in New York feel still more keenly than we the difficulty in being able to live in a day of only 24 hours. \* \* \* The European exchange professors endure ordinarily quite philosophically the overdriving of their colleagues in America. They console themselves by the thought that after all the work done on the basis of 15 or 20 hours per week can not possibly be above the undergraduate level, and that necessarily much of the work must be repeated from year to year.

The question of how much the public should expect of its teachers outside of school hours has two sides to it. If the teachers do no outside work the schools tend to lose touch with the community, as has happened in France, the nation which these critics represent. This is highly detrimental to progress, but it is also very detrimental to have teachers who are overworked to such an extent that their teaching becomes a mere repetition of what they have taught before. The problem seems to be that of steering between two undesirable extremes. Leadership by the teacher in the social activities of his district may easily be overdone, but it would also be dangerous to swing too far the other way.

Teachers are overburdened often by too many duties within the institution. Caullery ([14], p. 57) says:

The professor has a too heavy teaching load. He must have freedom of mind and time in which to undertake and conduct research. But in America the classes recite almost every day. The most of these require much preparation. But in the meantime the professors have too many reunions, commissions, and administrative cares. They must take too much time with individual students.

Grimm ([40], p. 421) says:

The high-school teacher who teaches one or two subjects can keep in training, but the elementary teacher has too many branches. It is not to be wondered at if even an able teaching force gradually sinks to the level of a soulless mechanism.

Both of these criticisms again call attention to the danger which results when teachers are overworked. The chief difficulty in removing the present burdens, particularly so far as the higher institutions are concerned, grows out of the principle of equality and the suspicion of experts. The average member of a State legislature undoubtedly thinks that every teacher should teach at least eight hours a day. The holidays on Saturday are begrudged. The idea that teaching is an expert service, for which a great deal of preparation is necessary, is not yet born in the minds of the general public. Many of the teachers themselves have not realized this fact and are consequently growing fossilized as the years pass by. Thus we come again to one of our most serious educational problems, the provisions for the growth of the teacher while teaching.

In one respect only it seems is the work of the American teacher less arduous than that of the teachers of Europe. Miss Burstall ([12], p. 158) says:

The teacher appears to do too little. The new ideas do not come from her. She acts more like the chairman of a meeting, the object of which is to ascertain whether the pupils have studied for themselves in a textbook and what they think about what they have been studying.

This undoubtedly sums up the American popular view of the function of teaching. No more is expected by the people in general; and if American teaching is measured by this standard, it will prove to be all that could be desired. Right here is the secret of the difficulties of teacher training in America. From such a point of view little training is needed. Not being needed, it is not wanted. The only hope lies in making the work of the expert teacher so valuable that the community will feel that it can not afford to do without him. When this is done the troublesome questions of salary and tenure will solve themselves.

#### RELATION BETWEEN TEACHERS AND PUPILS.

On the question of the relation between teachers and pupils the critics are divided. The Germans think it is a bad relationship, while the critics from England approve it. The French critics are divided among themselves. On the adverse side Grimm's criticism is typical ([40], p. 42) :

To the German teacher it appears strange for the children to use satirical criticisms against the school and the teacher when free hand is given on certain days of the year. As a relic of the Middle Ages \* \* \*, the young hopefuls ape the teacher before everybody and draw caricatures of him on the blackboard with more or less writing under them in which they give praise or blame in a more or less humorous way. The bantered teacher, \* \* \* led around by the nose by the sly children, is a continual figure in the newspapers. The average American sanctions this because he considers the American boy more wise and shrewd than any other.

Grimm also speaks of pupils who "stubbornly yawn in the faces of the lady teachers." On the other hand, Ravenhill ([72], p. 414) says:

The free and easy attitude of American boys and girls to their elders is undoubtedly a surprise at first to a visitor from the old country, yet one is conscious throughout of the existence of a very pleasant spirit of freedom on the part of the pupils.

Bain ([2], p. 21) says:

Children, when they first attend school are taught to regard one another as brothers and sisters and the teacher as their school mother. The classroom is their home, it belongs to them as much as to the teacher; they learn to keep it tidy, to beautify it, and to love it. From that they go on to a love for the whole school building, which they share in common with boys and girls from other families, who are equally attracted to it, proud of it, and anxious to make it as beautiful as possible. The school is their city and in it they learn something of the duties and privileges of citizenship. They also acquire a knowledge of a higher obligation, viz, that of their country and National Government whose flag flies over and protects their school home.

In general the English critic tends to look upon the friendliness and familiarity of the pupils and teachers as desirable rather than otherwise. Even one of the Germans, Beck ([4], p. 94), says:

The friendliness of the teacher and the good humor of the pupils are the rule. The schools are happier than ours, the *casa giacosa* of Vittorino de Feltre has arisen anew in America.

Black ([66], p. 38) says:

The personality of the pupil is respected. There is a freedom and familiarity between teachers and pupils that would seem strange in England.

The disagreement among our critics seems to be due mostly to differences of opinion concerning the value of respecting the personality of the child. This question has been discussed on page 23 and will be considered further in Chapter IV.

The following brief summary is offered as a conclusion to this chapter: The work of training teachers in America is being carried on under formidable difficulties. The general public and even many of our educational leaders still believe that thorough academic training is alone sufficient to produce good teachers. Consequently, professional training in America is not satisfactory. The annual output of teacher-training institutions is less than one-fourth of what it should be. The quality of the training is also inferior to that of the leading European countries. The general condition of normal schools is unsatisfactory. Many of them fail to concentrate their efforts on the main problem. The attendance is relatively meager and irregular. Adequate facilities for practice teaching are not available. Entrance requirements are still too low.

Conditions in the teaching service as a whole are unsatisfactory. Salaries are inadequate, the tenure is uncertain and the pension system is very limited. The social standing of the teacher is good, but he has little or no standing professionally. While there is a progressive spirit among teachers in general it results mainly in a striving toward higher levels only. There are too many women teachers, and they are suffering under some limitations which are inconsistent with their freedom. Many teachers are also carrying a teaching load which is excessive.

Such are the chief elements of the complex problem of the teacher and his training in America.

## Chapter IV.

### ELEMENTARY EDUCATION AND THE KINDERGARTEN.

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In order to understand and evaluate the criticism which foreigners offer concerning our elementary education it is first of all helpful to consider the function of such education. What does the American elementary school aim to do and what does it accomplish? The answer to this question, so far as it is revealed in the criticism, indicates that the American elementary school is emphasizing ideals rather than knowledge. Sadler ([77], p. 433) lists the following aims:

To develop citizenship in a common nationality, to secure freedom of individual development, to promote variety rather than unity, to secure progress through free discussion rather than through administrative order, to promote alertness and adaptability rather than general culture.

Miss Burstall ([12], p. 19) says:

The pupils and teachers are aiming at power and facility of mind rather than knowledge. In America, the boy learns to use a textbook and a library, to get hold of a subject and talk about it in class, clearly and thoughtfully. Six months afterwards he may not be able to pass a written examination on it, but that does not matter. He could get it up again if it were worth while. It is this difference in aim which makes the unsympathetic English observer call American education superficial and say that it lacks thoroughness and accuracy. The American teacher aims to stimulate thought. In England the pupil learns lessons. \* \* \* What the American has gained from school training is a general intellectual experience over a wide area, the power of self-directed work, a readiness for emergencies, the power of rapid acquisition, adaptability, and quickness.

Rathbone in the Mosely Report ([66], p. 263) says:

American boys on leaving school do not in general know as much as the English boys, but they are more intelligent, resourceful, adaptable, harder working, and more anxious to improve their education. \* \* \* The American people do not consider their education at an end when they leave school or the university, but realize that they must go on learning all their lives. School education is not something separate from life, it is a part of life.

Groser in the same report ([66], p. 174) says:

A spirit of inquiry, individuality, and initiative is produced. These qualities lead the workman to continue his education and to read newspapers. His intelligence upon leaving school is not highly developed but it is of a curiously alert type.

All of this criticism comes from the English. Some of it is undoubtedly too complimentary, but it serves to call attention to the striking parts of our ideals as they impress our English visitors. In so far as it throws light on the function of the elementary school, it seems to indicate that the function is not to impart knowledge or develop culture but to set up ideals and increase power. The control of the tools of knowledge is not an end in itself but an essential means which leads to further education. Resourcefulness, adaptability, alertness, initiative are the cardinal points. To consider the American elementary school as an institution whose sole aim is to impart knowledge is to overlook the true source of its greatness. Each of these values centers closely about the individual. The emphasis is on the child rather than upon the curriculum. This statement is borne out by Höfer ([45], p. 28), who says:

A single purpose is shown in the schools of America that is to prepare the pupils for life. The schools do not ask what the Government, or the church, or any party demands, but what does the youth demand. In its independence, politically, religiously, and socially, from special interests lies the power, the respect, and the success of the American school.

Hippeau ([44], p. 87):

The Americans believe in allowing the pupils freedom in the expression of their thoughts. The teacher guides, counsels, and directs but does not believe that he should impose his ideas and sentiments on the pupils. One can not deny that this appeal to the individual reason, reflection, and free examination can give to young girls and boys an exaggerated confidence and sometimes a tone of sufficiency, yet it leads toward a more efficient mental development than does the dogmatic instruction which has so long been given as the criterion of truth of the teacher's word.

Such is the function of the American elementary school in so far as it grows out of American respect for personality. It includes the development of the spirit of inquiry, initiative, freedom in self-expression, self-education, alertness, resourcefulness, and adaptability. Such qualities are essential to successful living. We need them and must have them, even if, as Hippeau suggests, we must pay a high price for them.

On the other hand, the growth of the spirit of nationalism has put other duties upon the elementary school. Mark ([64], p. 19) says:

Public education is felt to be the essence of nation building. It must establish a democracy out of complex material and it must create a great western civilization \* \* \*. It must create right tastes, occupy the hands and minds of the children in useful ways, which stimulate industry and in ways which appeal to the love of beauty and use. It must develop the sense of wonder at, and sympathy with nature and must encourage a reverence for the beautiful, the good, and the true \* \* \*. The keyword of the new aim is to train the individual will to recognize and to respond sympathetically to the larger will of society. This, in a word, is the doctrine of individualism, as accepted by the leading American educators. The will of society requires free schools for

all classes, the fusion of nationalities, the inculcation of civic and moral virtues, and the growth of the power of voluntary organization into cooperating groups. In short, the school is asked to furnish life to its members. Individuality built up in this way is not that which separates one from all others, but it represents the community life, each single member of the community, \* \* \* that which, in a sense, is common to all.

Mark ([64], p. 28) says further:

The schools are the great democratizing influence, incarnating the American spirit as nothing else does \* \* \*. They are the greatest force in the assimilation of the immigrant.

Laveleye ([56], p. 339) says:

The American elementary school is the base and cement of their powerful Republic \* \* \*. Without it, the Union would have long ago ceased to exist.

These quotations speak for themselves and form a fitting supplement to those given on page 18. The coming of the immigrant and the gradual disappearance of the original Anglo-Saxon stock have placed a new burden upon the elementary school and one which no other institution is able to carry.

It has been shown that the development of the elementary school is based upon two great needs in American society. On the one hand, there is a great demand for the development of the individual personality while, on the other, a strong spirit of nationalism is required. Under autocratic control a gain in one of these elements has generally led to a loss in the other; but under democratic conditions, the conflict may be avoided, because in a democracy, the best way to develop the personality of the individual is through training in participation in those great social activities which lead to national stability and progress. The performance of this high and delicate task is the chief function of the elementary school.

The general subject of school organization has already been discussed in Chapter II. Much of the general discussion applies to the elementary school in particular. Some points, however, are emphasized in a new way and applied in a particular manner to the narrower field. Grasby ([37], p. 15) characterizes some of the weaknesses of the rural school organization as follows:

The board members are often ignorant without being conscious of it. Some farmers think—

“There ain’t no great good to be reached  
By tiptoein’ children up higher than ever their fathers was taughted.”

Like all small communities, they have party disputes; and energy which should have been given to education is devoted to quarrelling. \* \* \* Boards are apt to agree that—

“Whatever is done as to readin’,  
Providin’ things go to my say,  
Shan’t hang on no new-fangled hinges,  
But swing in the old-fashioned way.”

This criticism applies to a time which has passed away to a large extent. It is a reflection of conditions where the peculiar type of the environment tends to emphasize individualism and to interfere with the belief in perfectibility. Fathers are jealous of the improvement of their sons, because they fear the effect of such a thing on the condition of equality. Happily, such a condition is no longer general. We still have, however, the narrowness of outlook which causes valuable strength to be wasted in quarrels. To remedy this is the present problem of rural education.

Miss Burstall ([12], p. 284) raises another point concerning elementary school organization which is worth considering:

If England needs a warning she should find one strong and impressive enough in the rigidity and uniformity of the American public-school system and the consequent faults of their public schools. Such is the attempt to standardize individuals, as if they were pieces of a watch or a locomotive.

To correct this tendency is clearly one of our chief problems. To put pupils of every type of intelligence in the same grade and compel them all to go at the same rate means a curriculum which is adapted to the abilities of the lower half while the upper half is compelled to mark time. More attention should be given to the brighter pupils and opportunities must be provided so that their advancement can be more rapid. Recent progress in the art of testing intelligence has brought a satisfactory solution of this difficulty much nearer. It is now possible to organize special classes for subnormal and supernormal pupils and handle them in a much more effective manner than was possible a few years ago. There is also another respect in which our present type of organization seems unsatisfactory to our observers. Laporte ([55], p. 147) says:

Half of the pupils, at least, remain unoccupied or badly occupied while the others are reciting \* \* \*. The use of time seems to be the most feeble part of American school organization. There is nothing to indicate what the divisions of the class are doing to which the instructor is not giving direct attention.

Some Americans justify this practice by calling attention to the fact that the class which is not reciting is learning to study for itself amid distractions. They say that this is a very valuable power to develop; that it provides a discipline which is quite worth while. The prevailing view, however, holds that all distractions should be removed as far as it is possible to do so. Much better work is possible when the teacher has only one class in her room. Much more individual attention can be given and supervised study may become a reality. This is an end toward which every school community should work. Many of the city schools have already attained the desired end, but much remains to be done in the country. A much more complete consolidation of rural schools must take place before



even a beginning can be made. Where this is impossible there is little hope of relief.

These defects of our system of classification can be relieved in part by easy stages of promotion. Thus Mark ([63], p. 39) says:

**This classification system is defective sometimes when all the poor pupils get into one class, but if there are easy stages and frequent promotions a continuous stream of bright pupils is created which, passing upward through all grades and sections, makes stagnant pools impossible.**

The tendency toward easier stages for promotion is becoming more general but it is impracticable in many places, because it tends to multiply the number of classes and because the resulting classes are often too small. Under such conditions it seems necessary to stick to the present system in spite of its defects.

The organization which is represented by the Gary system is mentioned by one of the more recent observers. Gray ([38], p. 69) thinks that—

**The Gary plan is economical, but its weakness is the fact that academic and manual work receive equal emphasis. A given group of children may spend all of the morning hours in manual work while it devotes most of the afternoon work to recitation when the mental and bodily activities are not at their best.**

Gray also questions the value of making the elementary school work vocational in character. The recent Gary survey seems to bear out his contention. The academic work has proved to be deficient; insistence upon vocational work at the expense of a general education seems more and more questionable.

In Chapter II attention was called to the gap that exists between the elementary school and the high school. This point is worth emphasizing again. Mark ([64], p. 180) says:

**The difficulty requires a division of the curriculum at the end of the sixth grade. \* \* \* Where intellectual stimulus fails, moral earnestness will also flag. The consciousness of progress is a part of our moral making. Rob a child of it, and he can not but suffer in character. Or, again, looking toward the high school, the power to progress is a strength akin to virtue. Replace it by a baffled feeling, and in place of strength there will be hurtful discouragement. The grammar grades do not stimulate to hard study and the lack of this virile ingredient is the moral flaw in all seventh and eighth year courses, which are duly overlaid with recollection of what was done in the first three years of school. \* \* \* The worst possible thing to do is to pass a boy or girl through a school which bears the description of being in a deplorable condition of dry rot owing to the extreme poverty of subject matter offered by the curriculum and in this anaemic state to introduce him or her into a high-school course bristling with new studies taught by unfamiliar methods. There is a two-fold ethical consideration, \* \* \* the evil that is and the evil that will be. In the case of those who do not go beyond the elementary school, it is dangerous for the school to have lost its grip upon its pupils before they leave it. A boy ought not to go out into the world in a spirit of reaction. A**

large proportion of the city's outlay upon his education is wasted if he does, and compulsory attendance may come to be injurious. So soon as the school ceases to be a place where the boy can live to the full his intellectual life, \* \* \* so soon does the intellectual character of the boy suffer, with all that that implies in loss of well-adjusted will power, balanced judgment, self-esteem and high self-command. The danger is increased by the comparative absence of sound teaching methods in the upper grades.

This rather lengthy criticism is typical of much that is offered concerning our need of something like the junior high school. It also suggests the fact that the purpose of the upper grades of the elementary school above the sixth grade is really twofold. Some of the students are being prepared for life, while some are being prepared to enter high school. Some adjustment of our organization is required so that the needs of both types of students may be cared for in an adequate manner. In reality, the most important step to make in providing for the needs of both classes is to keep constantly in mind the fundamental fact that true education is life rather than a preparation for life or for high school. Such a realization would do more than any other one thing to prevent the serious weakness which Mark points out. Perhaps the European plan of dividing the students at the twelfth year into separate groups will prove to be the best plan here also. It seems certain that the present plan of organization is quite inadequate. There is an urgent need for a break in our system of instruction at the end of the sixth grade and again at the end of the ninth. The present junior high school movement is a most promising attempt to strengthen this weakest part of our school organization.

Before leaving the question of organization and control of the elementary school it is worth while to recall the criticism dealing with our type of supervision which was given on page 45. The superintendents and supervisors tend to grow autocratic. Too much of the policy of the elementary school is of the type which is handed down from above. American supervisors should learn to avoid such undemocratic procedure. They should get their results through inspiration and stimulation rather than by dictatorial tactics.

Some of the criticisms center on the curriculum of the elementary school, though this does not seem to have been interesting to any great number. Several of them mention the tendency of the curriculum to widen so as to include more and more modern culture material. Klemm says [48], p. 54):

There are, along with and generally subordinate to, the superintendent, special supervisors of writing, drawing, singing, handwork for boys and for girls, cooking, sewing, physical training, temperance, and God knows what else. All these break into the school day like a hungry child who wants his butter and bread \* \* \* so that little time is left for real school work. The results in writing, reading, and arithmetic get worse and worse and the school suffers loss of respect. The distress caused by the special teacher is lamentable

in many places. \* \* \* Some of the pupils can do hemming, stitching, and cooking, can sing and dance, weave pretty baskets out of variegated threads, fold paper without injuring their thumbs, but they have not learned the four fundamental processes. There are also children who learn to mold the head of Hercules, who can draw the picture of a horse on the blackboard without forgetting to draw its tail, but can not write its name.

Beck says:

The children know something of everything but nothing accurately; they can do something of everything but nothing in an orderly way. They are always careless. But, worst of all, the child does not feel that his ignorance is a defect.

These criticisms call attention to a problem which we are just beginning to realize. To fill the curriculum with too much culture material leads to the neglect of the tools of knowledge. The school activities which Klemm mentions received their emphasis largely from the culture-epoch theory. They have been and are of great value in lending life and interest to the elementary studies, but recent evidence<sup>1</sup> goes to show that Klemm is right. The schools which emphasize this culture material the most are likely to show correspondingly poor results in the fundamentals. This is the most serious objection to general use of the project method. In order to justify itself the project method must show results which are up to standard in the tool subjects, which are after all the essence of the elementary school curriculum. Education is life in the present, but it is also more than that. It must provide for independent growth in the future. Such growth is based upon the ability to get clear impressions and the power of forceful expression. Thus an elementary curriculum which fails to produce satisfactory results in reading and which does not develop facility in oral and written expression is of doubtful value. Yet the cultural side also is invaluable. The mistake has been made of trying to attain both ends in six years of elementary work. The remedy seems to lie in raising the age of compulsory attendance up to at least 16 and in the provision of continuation schools for those who must begin work before that time. To make such provision is the next problem which America will be called upon to solve.

Several critics are pleased with our efforts to make use of a curriculum which is based upon the child's environment. Wallace ([87], p. 498) says:

To lead children to feel affectionately toward plants and animals, to ennoble the artistic and ethical nature of the child is good. But much of what is called nature study in America is mere sentimentalism. \* \* \* Teachers in the United States will study under the guise of nature study anything and everything but simple nature, and eschewing any form of investigation, they have a fondness for memorizing classified facts.

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<sup>1</sup> See the Gary Survey for instance.

This is a danger that has often been pointed out since the days of Gradgrind. It is still present with us, but we are improving.

The emphasis which American education places upon the teaching of patriotism seems to commend itself strongly to our visitors. A few of them think that our flag exercises are perfunctory and theatrical at times. The practice of teaching patriotism in connection with the celebration of holidays meets with universal approval, particularly from English observers. It has proved very efficient in the Americanization of the immigrant.

### METHODS OF TEACHING.

Much detailed criticism is offered concerning the various subjects. It centers mainly around reading, writing, drawing, geography, history, and manual training. The discussion of the last is given in the chapter on secondary education, page 117. A few of the typical criticisms are noted here as they apply to the other subjects.

Our work in reading is generally commended. Mark ([64], p. 146) commends the practice of reading complete selections rather than mere extracts. Fitch ([32], p. 46) approves of our tendency to emphasize silent reading. Loebner, however ([58], p. 12), suggests that our emphasis upon reading is overdone.

It may be worthy of note that a large number of students and adults of both sexes wear spectacles, \* \* \* an evidence that the zeal for reading in America when developed into passion is not without harmful influence upon the eyes.

This, however, is probably the case everywhere. There seems to be no evidence that more spectacles are worn in America than elsewhere.

The criticism of our writing is also generally favorable. Several critics think that we are having too much written work. Special mention is made of our emphasis on rapidity in writing. It is also asserted that the writing of children is judged too much according to adult standards.

Much of the criticism centers around the teaching of drawing. Höfer ([45], p. 26) thinks that the practice of using illustrations in connection with written work for the purpose of exhibition is overdone, particularly when the drawings do not correspond closely to the content of the written work. He likes the idea of making free-hand drawings of what the child sees. Armstrong, in the Mosely Report ([66], p. 9), says:

Simple measurement work in association with drawing is almost unknown.

Beck ([4], p. 126) says:

They draw, but they attain at best only nimbleness, not art. The drawings in the upper grades are generally as meaningless to the uninitiated as those in the grades below, and the expression impulse has developed into a rage for illustrations.

Muthesius ([70], p. 135) comments as follows upon our failure to use geometrical forms in free-hand drawing for the purpose of practising the eye and the hand:

The old European notion that drawing from nature and the use of water colors is too difficult for children has disappeared. The freedom with which general impressions are retained and the taste with which they are represented in color is often astonishing. In drawings of the human model in the schools one finds surprising indications of power of observation and naive artistic rendering. Good taste is shown in designing.

On page 142 Muthesius concludes by saying:

In spite of many peculiarities of the system of American industrial and art education, its suggestions to European schoolmen are most prolific and persistent. The common-school instruction in drawing was an absolute revelation. It has a new point of view. In Europe drawing is a transfer of academic principles to the children's school, in which the child as an intellectual organism receives but little consideration. In America such instruction is linked to the natural instinct of activity in the child. It rests upon an intimate study of child nature. The results are in accordance with the soundness of the principle, even though the upper classes do not wholly fulfill what the lower classes promise. Germany should organize such a system.

Such is the strength and weakness of our instruction in drawing as seen by our critics. Two things stand out in the criticism, a lack of artistic atmosphere in America and a tendency to center drawing instruction upon the nature of the child. We take pride in the latter and hope to improve the former.

Concerning other subjects of the curriculum, Clasen ([16], p. 355) says:

Whatever instruction is given in the geography and history of the remainder of America, of Europe (with the exception of England), and of other parts of the earth is not worthy of mention. Instruction in natural science suffers extreme neglect \* \* \*. But with music teaching the conditions are, if possible, still worse. Yet special well-paid music teachers go from school to school, teaching all sorts of theoretical nonsense \* \* \*; for example, the keys of six flats and seven sharps together with head-splitting harmony. What I heard of school singing was more like Indian war whoops.

Griebsch ([39], pp. 614-615) says:

The most noticeable defect in the plan of instruction in the American school is that the history of the world does not receive even the least consideration. Such instruction would serve more than any other means to remove the so general and so hateful jingoism. The pupils learn of other nations only from what information they receive from the study of American history, and the other nations appear there with little glamor. Thus the young American comes to underestimate other nations and overestimate his own. This makes him blind toward the acquisitions of other countries and injures his own cultural evolution.

The criticisms of our history teaching, science teaching, and music teaching are clearly well taken. This is particularly true in the case of history. Such a provincial spirit is growing more and more

dangerous, because America can no longer live to herself alone. It is becoming more and more important for us to understand what other nations are doing and why they are doing so. If we wish to avoid war in the future, we must cultivate a more intelligent acquaintance with our neighbors in the world. Their problems are our problems. Their successes will help us to succeed, and a knowledge of their failures will enable us to avoid similar failures in the solution of our own problems.

### PROBLEMS OF METHOD.

Most of the criticism of the elementary schools centers around problems of method. On both the elementary and secondary levels the first thing that seems to attract the attention of the critics is the American practice of using textbooks. As to the value of this practice the critics are divided. Waetzoldt ([86], p. 556) says the textbook method

makes the pupil independent of the teacher. The latter needs only to supplement, help, or direct; \* \* \* must interfere as little as possible with the independence of the pupil.

Miss Burstall ([12], p. 158) adds:

The method provides for the cooperation of the pupils by bringing out the details of the lesson in a variety of different aspects. Ideas may be brought out which are new even to the teacher. The pupil can understand the statement of an idea better when it is stated in the words of a fellow pupil. \* \* \* The pupils manage to get the various spontaneous contributions of members of the class into form and so obtain a sort of composite photograph of the average of the class.

Miss Bramwell ([7], p. 34) thinks that in this way—

The pupils are taught how to use books, to rely on their own efforts during class time, and to be alert in thought and speech.

Rathbone, in the Mosely Report ([66] p. 262), says:

Children seem to catch something of the spirit of research. One of the avenues of knowledge has been opened to their unaided efforts.

All of these values are in accord with American ideals of self-improvement. But there is another side to the question. Waetzoldt says also ([86], p. 556):

As a result of the textbook method, the American teacher rarely enjoys that supreme pleasure of reading in the eyes of his class that they are following him, nor has he the pleasurable consciousness of developing a subject himself as the exigencies of the moment may demand.

Miss Burstall says ([12], p. 79):

The recitation method based upon the textbook has its faults; chief among which is dullness. There is also danger that the more backward and feeble

pupils may never really understand the subject at all, for the teacher does not, as a rule, explain the difficulties as our English teacher does, so that even the duller may understand.

Again on page 159 we have:

The master is the textbook and here we strike a vital peculiarity in American education. Its aim has been intellectually the mastery of books; with us, education has always been very much more, always and everywhere, a personal relation. The children learn from the master or mistress with or without the aid of a book. In a good school in England we should say that the teacher ought to know more than the textbook. In any case, we feel rather than judge that the child can learn more from the living voice of the teacher than from any book. \* \* \*

According to the German and English ideal, the new material is grappled with first in the classroom by the teacher and pupil together. In America the pupil out of school studies the new material first in the textbook and goes over it afterwards in the class with the teacher. The teacher in America must be familiar, not only with the textbook, as we are, but with what all the leading textbooks say about the subject. Some teachers have to spend hours in a library looking up every possible reference that a pupil might make in class.

Miss Bramwell ([7], p. 34) summarized the defects of the textbook method as follows:

It leads to the mere "reciting" of the words of the book. Book and references are used where thought and reflection might be better guides. It encourages digressions in class and a resulting slowness in finishing subject matter. It wastes time by causing debate upon subjects involving only individual difference of opinion. There is a tendency to bookishness and slavery to word forms.

Griebsch ([39], p. 604) says:

The teacher is compelled against her own judgment to use textbooks and to imprison free words in the chains of a textbook, which is often not truthful. As an example of this he cites histories written from the northern and from the southern point of view dealing with the American Civil War.

Dulon ([28], p. 265) thinks that—

The true enjoyment of scientific work which is connected with spontaneous discovery and comprehension is impossible in the society of textbooks and recitations. Knowledge may be manifold, but it remains superficial and external.

This series of criticisms seems to sum up our situation in regard to the textbook method quite well. In so far as the use of the textbook makes the pupil independent of the teacher so that he can work things out for himself it is to be desired. It is desirable also in so far as it leads to variety of viewpoint, in so far as it leads to the use of the library, and in so far as it inculcates a spirit of independent study. But continual care is needed to guard against some of the dangers which are pointed out. Waetzolt's objection will have little weight because America prefers to stimulate the initiative of

the pupil rather than have him led by the teacher. Miss Burstall's objection, however, is more serious. Mere reciting is dull. There has been too much emphasis on rote memory and too little upon training in judgment and thinking. This defect has long been recognized and it is no longer to be found if the teacher has been trained properly. The topical method is growing in use, while verbatim methods are passing even among untrained teachers.

The tendency for the work to become too intellectual is a danger which besets all methods of teaching. We have suffered from it, but hardly more than have other countries. At least it is not peculiar to the textbook method. As requirements in teacher training are raised undoubtedly there will be less slavery to the printed page. A further help in this connection is the growing tendency to equip each schoolroom with several texts for purposes of comparison. The use of source material is another tendency which helps to offset this difficulty. It is desirable, of course, to have teachers who know more than is given in the textbook, but the teacher does not have to know everything about the subject. Some of our problems should be studied with the distinct understanding that neither the teacher nor the children know the answer, but that they are going to work together to find out what it is. This would avoid the tendency toward didactic formalism and would promote the spirit of inquiry and growth.

It is true that many pupils can learn better through their ears than through their eyes. For such pupils the textbook is difficult. But since so much of our educational matter is now available in printed form, and since the mastery of this form is so essential to the gaining of information after school days are over, it seems desirable that the reading method of learning should be emphasized even for those who are not "eye-minded."

The majority of Americans will for similar reasons prefer to stick to the policy of presenting the new material in printed form first. This does not mean, however, that the assignment should be neglected or that pupils should not be taught how to study the new lesson. In some cases it will doubtless be better for the teacher to go over the new material with the class beforehand. This is the study-recitation idea and it has been recommended and used for just such cases. The ideal, however, is to train the pupils so that they can master the printed page without the aid of a teacher.

The suggestion that unnecessary debating will arise hardly commends itself to the American. Debating and the power to express one's thoughts are too valuable. We should consider this an advantage rather than a disadvantage, even if much time is used in debating seemingly trivial subjects. They may not be so trivial in



the eyes of the pupils; and even if they were, valuable practice in the power of expression would still be afforded.

As Griebisch says, textbooks are not always truthful, but teachers also are likely to be prejudiced. The "free minds of the pupils may also be enchained" in the words of the teacher. In fact, it seems quite certain that too much of that sort of thing has been going on in Germany. When it comes to prejudice and error, the textbook is less likely to be affected than is the individual teacher.

Finally, America will not agree with Dulon when he says that true enjoyment of scientific work is impossible in the society of recitations and textbooks. It is undeniably endangered sometimes, but there is no reason why the two can not exist together when there is plenty of supplementary material and when the pupils know how to study and use books.

Thus it seems that all of the objections which have been raised to the use of textbooks are either negligible or removable, while the values which come from using them can be achieved in no other way. It does not seem probable, therefore, that America will abandon the textbook method. On the other hand, continual effort should be made to avoid the dangers which the method involves.

Closely connected with the use of the textbooks is the use of library books. Our children's reading rooms are a source of amazement to all foreigners. They are peculiar to America and are the result of our belief in the principle of equipping each individual with the power and the means to educate himself without a teacher.

The American practice of teaching through the eye rather than through the ear has emphasized another tendency which is a source of curiosity to our critics, particularly those of the earlier periods. This is the use of the blackboard. The blackboard is neither praised nor condemned in general, though one or two critics seem to like it. Walther ([89], p. 31) thinks that blackboards are good as a means of correcting mistakes in written work and as a means of presenting outlines. "They also lessen the amount of written work at home and relieve the teacher of much marking of papers." The use of the blackboard is an excellent instance of the American belief in teaching through reading and in the value of class discussion.

The criticism which has been quoted concerning the textbook method is typical of that which applies to the recitation. The recitation also excites the curiosity of the critics. They use the class period for imparting information and in reviewing what was previously given, while in America the class period is used for the purpose of recalling what the pupil has learned for himself—in the textbook or from supplementary material—and in discussion of the points involved therein. Thus the emphasis is on the ability to do

independent reading and in practice in oral expression. The dangers involved are the same as those already noted as applying to the textbook method. In order to emphasize these dangers two additional criticisms are given. Fitch ([32], p. 50) says:

An undue proportion of what was learned was learned by heart. Even the oral exercises, which were supposed to be spontaneous, were too much alike and conformed too often to certain conventional patterns which were in constant use. Memorizing \* \* \* is confined to scraps of information or short passages from the textbooks. Many more rules, aphorisms, and short definitions are committed to memory in American than in English schools.

For example, he mentions the reciting of names and dates of the Presidents in order.

Dulon ([28], p. 265) says:

The one-sided cultivation of the memory interferes with the general mental development whose more powerful expression must be found in spontaneous and independent thinking. It is unbelievably difficult for the recitations to train the pupil in intelligent thinking.

Much has happened to improve matters since Dulon's day. Training in intelligent thinking is now possible in connection with our recitations if they are conducted in the proper manner, yet it is necessary to be on continual guard against tendencies toward dry formalism. The only safe thing to do is to secure thoroughly trained teachers and provide for their growth while in the work. The teacher who sees his field in its larger relations is seldom, if ever, guilty of permitting his recitations to degenerate into mere rote memory exercises.

The influence of American belief in respect for the individual personality shows quite plainly in our methods and calls forth some very strong criticism from our critics, particularly the Germans. Beck ([4], p. 94), for example, says:

They have taken care that the way shall be clear for the free development of personality. Therefore, they tolerate no authority in the school other than that chosen by the children themselves. The school as an institution has no standing. It can not hold or go after the children. It entices the pupils and praises their work. The child does not extend his hands toward the teacher in order to grow, but the teacher bows down before the "lieben Kindelein." \* \* \* The teacher does not ask questions. He must wait for the pupil to ask him, in case the pupil can not advance by his own efforts. There is no imparting of information, no giving of attention, no listening but only self-activity, \* \* \* at least such is the demand of the American theory. \* \* \* Compulsory rules are replaced by motivation. As many islands entice one on a boat ride, and as the lower steps invite ascent, so a multitude of easy details entice the pupil along the streets of learning.

On page 127, Beck says:

The liberal view that everything must grow out of the experiences and initiative of the children gives the recitation a lack of system. The teacher drifts

hither and thither. I have never been able to see the steady progress of a well-planned lesson. I have never heard a right well-connected one in which an end is striven after by the child mind, pressing onward step by step, hesitating often but again taking courage until finally the pleasure of victory rewards the worker. If the child is encouraged to express himself concerning everything, boasting and immoral pride is the result. A pedagogical theory which bases its procedure and aims only upon the powers of the child leads to pedagogical anarchy.

Klemm says ([48], p. 56) :

In Chicago there is a school in which the small pupils are not bothered with letters until they themselves wish to learn to read. This is certainly "putting the cart before the horse."

Here we have the old conflict between interest and effort. Both Beck and Klemm object to allowing the child's interest to be the controlling factor, partly, at least, because the doing of what one wants to do is easy. According to the dominant German view which these men represent, the aim in education is training in doing one's duty, especially when this involves difficulty. Carried to an extreme, this means that all educative activity should consist in doing what one dislikes to do. The more one hates the task the more valuable it becomes. This view in a modified form is also represented in this country and is closely related to the old religious doctrine of total depravity and to the disciplinary conception of education.

But recent tendencies have been in the other direction. We are beginning to understand the meaning of the law of effect in learning. Education must, after all, grow out of instincts, emotions, and immediate interests. To attempt to suppress these inner tendencies is to waste vital human energy in a vain struggle against resistance. Such educational effort is sure to be painful, tiresome, and slow, while an education which utilizes and redirects the mighty forces of original nature is pleasurable, refreshing, and rapid. The latter process is called motivation and is founded upon the basic principle that true education is conditioned upon the whole-hearted, purposeful activity of the child. It is considered fundamental that the child should like what he is doing. There is no emphasis upon doing a thing from a sense of duty. The factor of compulsion by external authority is not a dominant one. If such compulsion is tolerated at all it must be justified in terms of the needs of the class. It must not come *ex cathedra* from the teacher.

So far as the educational leaders are concerned the majority are clearly in favor of the spirit of the more recent tendency. Among the people at large, the principle of motivation is in accord with the respect for personality and the hatred of external authority. The philosophy back of the process is clearly the most successful effort that has yet been made to state American ideals in philosophical

terms. Yet the extreme form of it as stated by Beck is not acceptable to Americans in general. There is still a strong current of public opinion which favors obedience to external authority, particularly on the part of children. The average man, too, is still of the opinion that the school should be a place where children work rather than play. He expects his children to learn to overcome resistance through effort. He has little love for anything that sounds like soft pedagogy.

Here, as in many other situations, the middle course is the desirable one. The problem is not that of avoiding all effort but that of getting the most done with the least friction and fatigue. Above all, the motive force must come from within rather than from without. Pupils must be made willing to put forth efforts in order to attain some cherished and conscious ideal rather than to avoid an external penalty. To impel is better than to compel. The disadvantages which are mentioned by Beck and Klemm are real but they involve less danger, at least in a democratic society, than do the older methods of procedure. In the meantime, it is possible to guard against some of the dangers which are connected with the doctrine of motivation. While the teacher is not to be autocratic, yet she must always be a leader. Skillful leadership will avoid the lack of system which Beck mentions, and will be a safe guaranty against the pedagogical anarchy which he fears. Respect for the personality of the child is not inconsistent with leadership by the teacher.

A more serious danger to be avoided results from the fact that theory tends to be divorced from practice. Beck ([4], p. 90) says:

Unfortunately many realities are in the way of the theory which bases education on the self-activity of the child. Stronger powers rule the schools than those of their philosophical representatives. These powers shape the principle of self-development to their own ends. One now recognizes that one is walking in the clouds when one uses this idea. It would be better to aim at adjustment, social membership, and citizenship in the surrounding nature and culture world.

The latter aims are also those which the method of education through self-activity claims to attain better than does any other method. It is true that the leaders who are basing education upon self-activity are in advance of current practice. This is as it should be. But to accuse them of "walking in the clouds" is putting the matter too strongly. To institute a new procedure and put it upon a sound foundation requires time, and there is a tendency on the part of some of our leaders to grow impatient and to run too far ahead of current practice. We must continually guard against this mistake. It is not necessary or advisable to abandon the principle; but there is a crying need of a band of shrewd, patient, and tactful teachers, who are sound in theoretical knowledge, who can adjust the theory to the practice, and who are powerful in building up public faith in self-activity as a basis for modern education.

The criticisms so far given are types of the German reaction to methods based on self-activity and respect for personality. The French critics do not touch upon the subject. This seems to be due to the fact that none of them in recent years have been interested in the elementary field. The English generally like the method and are able to appreciate it at its true value.

Ravenhill ([72], p. 407) commends our

emphasis on self-activity without insistence on perfection of performance. The old idea that the child gets more intellectual and mental discipline when he goes at a matter unwillingly and not spontaneously, out of the fullness of his own heart is fairly shaken to its foundations in the United States. The American method aims to discover the power, not the weakness of the pupil, to emphasize success achieved and not the disheartening shortcomings as in the case of the older methods.

Mark ([63], p. 143) says:

The children are doing what they like to do rather than liking what they have to do.

Both of these observers seem favorable to the method and able to appreciate it. Mark, however, is not fully in accord with the content which has been used. The principle of self-activity has carried with it the idea that the individual must relive the experience of the race. It is this that Mark questions.

He says ([63], p. 46):

American children are liable to overtension. Hence the use of adult methods may involve a striving after a community life and a community consciousness, whilst the ordinary child is only a crude little individual. The biogenic law may be overemphasized. Too much vital consciousness may arrest development quite as seriously as too much repression. What is repressed may remain latent, what is permanently expressed is with difficulty recalled to a static state.

The last quotation calls attention to a defect which may arise in connection with basing the curriculum upon the culture epoch theory. This theory is now discredited, and as a result a great mass of our pedagogical literature is out of date. This fact in itself should make us very cautious in assuming that any contribution is the last word on the subject. The passing of the culture epoch theory has in no way invalidated the principle of self-activity. It still bids fair to be a distinct contribution to the theory of education as worked out in America. The results will come slowly but surely. In the meantime improvements in our theory will bring it closer and closer to a correct statement of American belief and ideals.

#### THE ELEMENTARY SCHOOL.

Our belief in progress manifests itself in the elementary school as a tendency toward experimentation. The Germans are particularly interested in this phase of our work. In general, they approve it,

though Kuypers ([49], p. 130) believes that it is dangerous to use the child as a subject for experimentation. He believes that it is preferable to hold onto the old methods. Whether or not this criticism is to apply depends upon the character and value of the experiment. The danger of an experiment turning out wrongly may be neglected if the success of the experiment is quite probable, and particularly if it would be of great benefit to the country at large. On the other hand, long-continued experiments of doubtful chances of success are to be condemned. The Gary experiment seems to have been of this type. No experiment should be permitted to run as much as 10 years without a careful inventory of its results.

The general idea and belief in experimentation, however, is essential to progress and, therefore, one of our most hopeful tendencies. In speaking of this attitude Beck ([4], p. 87) says:

Experiences come over there quicker and more easily than with us. The American is not hindered by a consideration of the present. An entire absence of sentimentality permits old ideas to be forgotten quickly.

As an example of this tendency he says:

Pestalozzianism has suffered arrested development with us, while over there it has borne real fruit because the Americans energetically carry things through.

Thus we see again the American tendency toward progress which is working itself out through experimentation. With proper safeguards it should keep America at the front in the movement toward educational progress.

Probably the most distinctive characteristic of the American elementary school is the attitude which the children have toward it.

Mention has already been made of the excellent relation between teachers and pupils. The pupils' attitude toward each other and toward the school in general seems equally praiseworthy.

Mark ([64], p. 27) says:

The teacher aims to make the children proud of each other when they do good work, and the class as a whole brightens up when the teacher praises any member of it. Thus she aims to produce a zest for good work for its own sake, and at the same time an admiration for the right things in the school community. The cultivation of good manners is regarded as a function of the school. Education is not a mere drawing out, \* \* \* a mere training of the powers of the individual. It is also a leading forth into the world and into life. \* \* \* The teacher identifies herself with the social feeling of the class and indeed creates it by her sympathy with the children and by the enjoyment of their work which allows this feeling to develop.

Dunker ([29], p. 37) says:

There are those in Germany who very often go out into life as sullen natures, without faith in themselves or their calling, without force or impulse to create, angered against the school which did not understand them. Of the best which the school can give of the impulse upward, of the longing after better things, they have felt no trace. Their education is ended.

Dunker believes that America avoids all of these things.

Langlois ([52], p. 218) says:

The children have a decided preference for the school. They love to go and they hold their school days in loving remembrance.

Salmon says ([79], p. 26):

The tone of the class was more that of a big family than that of a small regiment. The ideal is not restraint from doing wrong, but incitement to do right.

These criticisms are typical of many others, all pointing toward an excellent school atmosphere, involving respect, cooperation, and devotion, which is one of the most unique and most inspiring features of American education.

### THE KINDERGARTEN.

The kindergarten in America has also come in for its share of criticism. In general, this criticism has been favorable, though certain defects are also pointed out. The most complete criticism is that of Mark ([63], p. 182 ff). He says:

The kindergarten has already had a history in America such as probably no single educational system has had anywhere amongst the Western people, if exception be made of the renaissance standards as set up by Sturm and the Jesuits.

The only infant school in America is the kindergarten, \* \* \* innocent of all intrusion on the part of the three R's in however simple a guise, and yet containing a preparation of thought and capacity which is of great ultimate value wherever primary-grade teachers are sympathetic toward it. It is based on the principle of "Learning by doing." In the social aspect it is, with the university, the greatest conservator of individualism, \* \* \* which looks out upon the larger social whole between which and the individual, action and reaction, imparting and receiving are ever taking place.

He calls attention to two interpretations of kindergarten principles in America, the one based on the ipse dixit of Froebel which advocates directed play, and the other, a modified form which is based upon the principle of free play: He says:

The first incorporates play and games merely because they appeal to the child's instincts, while the second selects the universal and typical plays of childhood which have some recognized educational value, some principle of unconscious instruction, some ideal outlook upon society, and a certain amount of ethical content. The first emphasizes the plays which children everywhere follow by sheer imitation. The second selects plays and gifts which are a preparation for mathematics and æsthetics, which are a means of constructing the complex out of the simple and of discovering possibilities of beauty in the elementary type forms such as the square and the circle. The first makes the kindergarten an organized playroom, the second makes it a school. The first type of kindergarten is practically a piece of the occupied life of the child outside of the school, \* \* \* the second is an enlargement of the child's life, thought, and outlook. \* \* \* The aim of the free-play type is to lift the child out of the meager and uninspiring environment of thoroughfare and

kitchen. At the same time its spirit is not merely utilitarian. It aims to cause children to relive and interpret as many of the social experiences as possible, and to appeal to the constructive imagination as well as to cultivate self-expression.

The foregoing seems to be an excellent statement of the aims and achievements of the American kindergarten.

The kindergarten has also given rise to secondary influences which are of value. Mark ([63], p. 193) notes that its influence is spreading upward and giving a new life to the higher schools, particularly those of technical character. It has served also to emphasize the relation between mental and physical activity. Of still greater importance has been its value in bringing about a helpful cooperation between the home and the school.

A few defects are pointed out. Mark ([63], p. 193) says:

The kindergarten may create a forced atmosphere, overstimulate the individuality of children, and induce artificial consciousness of achievement. \* \* \* In some cases there is a too pedantic following of unassimilated precepts. \* \* \* an overstrained devotion to the theory only partially worked out by Froebel himself.

Grasby ([37], p. 60), Fitch ([32], p. 45), and Salmon ([79], p. 12) point out the lack of coordination between the kindergarten and the elementary school and suggest that this condition should be remedied. Fitch thinks that because of its playful nature the kindergarten does not afford the best preparation for the elementary school. For that reason he prefers the English infant schools. Salmon ([79], p. 12) thinks that the kindergartens should not be confined to the cities only.

On the whole, it seems that the American kindergarten in its modified form is one of our most successful institutions. Its influence has been good and the opportunities which it offers should be made available to every child. The fact that only one child in eight has the advantages which it offers is another evidence of our lack of self-consciousness. The principle of equality of opportunity for all should prevail as far as possible.



## Chapter V.

### SECONDARY EDUCATION.

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A consideration of the foreign criticism of secondary education is beset with several difficulties. As has been related in Chapter II, the secondary period in foreign countries is more extensive than it is here. With them it roughly covers the period of the child's life between the ages of 12 and 18. Thus the foreign statements concerning secondary education apply to schools which are represented in this country by part of the elementary school, all of the high school, and part of the college. This point must be kept continually in mind by all who would intelligently study this type of education from the comparative point of view.

It is difficult to arrive at a definition of what secondary education is. The English Board of Education defines it as that type of education which is suited to young people between the ages of 12 and 17. In Germany and France secondary education is that type which prepares pupils to enter the universities. Beyond this there seem to be no definite statements, though the policies of procedure are well worked out. In like manner, there seems to be no comprehensive statement of the function of secondary education. Certain elements of its function, however, are pointed out.

Sadler ([76], p. 150) suggests that the aims and character of the chief part of secondary education should be—

the preparation of the relatively few highly talented pupils for higher education rather than the education of those who will not proceed beyond the high school \* \* \*. The tendency in America is to prolong the years of general and liberal education and postpone specialization as far as possible. Whether to specialize earlier or to sacrifice expertness in one's calling to the hope of unlimited progress in higher culture is the gravest question at issue in American secondary education.

An effort to meet both of the above demands has led to the multiplication of subjects in the secondary schools, with the attendant hurry and drive. The remedy for this is not narrow specialization but differentiation in types of secondary schools. This would involve a somewhat earlier choice of a profession, but differentiation of types of schools would be a national misfortune if it impaired the free intermingling of boys from all classes of society, which has been one of the great glories of American education. \* \* \* The American leaders show a united front against any narrowly commercial spirit in the secondary schools. American business atmosphere is so tense that it is the duty of the secondary school to provide a counteracting influence rather than intensify the interest in commercial matters. The true claims for second-

ary studies are not based on the advantage in commercial bargaining but on the need for training to the highest possible point the gift of expression through which man enjoys fullness and freedom of intercourse with other men. \* \* \* What is going on in America is a fierce struggle between these two contending forces and ideals of life. The victory of the nobler influence depends in great measure on what use is made of education during the next 20 years. Among the best antidotes for materialism and selfishness in a commercial community are idealism and self-sacrifice in the schools. A businesslike idealism is the characteristic feature of American education at its best. This combination of two great qualities will protect the schools from the dangers of vulgar utilitarianism on the one hand, and from undue excitement, superficiality, and self-advertisement on the other.

Sadler ([77], p. 439) says:

America has rendered a great service to Europe by refusing to put up with a purely linguistic course as the only type of secondary education. Such education should be more varied and should appeal to larger numbers.

These selections from the writings of Sadler have been quoted both because of the high standing of the author and because they are typical of much of the criticism in general. America will not agree with the idea that the most important function of secondary education is to prepare for entrance to college or university. That sounds too much like class education to suit the average American. Imbued as he is with the doctrine of equality, he refuses to support an institution whose most important function is to lead to a level which is attainable by the few only.

On the other hand, the American spirit of initiative and personal freedom, combined with the doctrine of improvability, causes many to enter high school who do not expect to finish college. The high school is thus required to deal with all sorts of intellectual and social types united by a common initiative and a common belief in their own power to improve themselves. To meet the needs of this very complex social group is the chief function of the American high school. The task is tremendous, but every public high school in a democracy must at least attempt it. Complete success is, of course, impossible. With many individuals the school will fail. In such cases the same forces and aspirations which brought them into the high school will cause them to drop out and seek self-realization elsewhere. Those whose interests are satisfied and stimulated will, in general, remain at school in "the hope of unlimited progress in higher culture," while those who drop out will be very likely to seek their individual growth in "commercial bargaining." Such is the origin of what Sadler calls the "two contending forces and ideals of life." Both are due to the same impulse operating in the same direction but along different channels and at different cultural levels. The danger in the situation lies, not in the fact that some engage in the "commercial bargaining," but in the low cultural level at which this

is done. The general tendency is clearly toward a demand for a full 4-year course in liberal secondary education for all who can profit by it. To leave school at a lower level is to run the risk of being handicapped in later life both as a citizen and as a producer.

The complex character of the student population in the high school is responsible for the multiplication of subjects in the curriculum.

This tendency has been recognized by the colleges and universities, and it is now possible to make credit for college entrance in practically every subject which the high schools offer. The emphasis, therefore, is on the interests of the individual rather than the entrance requirements of the higher institutions. This protects the schools against rigidity in method and content. With such a policy Sadler seems thoroughly in accord. He says ([77], p. 439) :

Among the most precious qualities are resourcefulness, initiative, constructive ability, artistic power, leadership, trustworthiness, gayety of mind, moral courage, reverence, and faith. Yet these qualities are but little developed in the ordinary kind of school studies. Let us beware, therefore, of riveting down on a nation a system of intellectual tests which shall take no account of the very qualities on which, in the long run, national welfare most depends. Chaos may be a bad thing but overorganization is worse.

To all of this the American Nation will most heartily agree. America believes in the differentiation of the types of secondary schools, but there is a strong tendency, as Sadler suggests, to keep all of the students under the same roof. The practice of setting up separate institutions, as was the policy in Germany, meets with strong objections here on the grounds that it leads toward class education, which is, of all things, most hateful.

The practice of keeping all types of high-school education as nearly as possible under one roof is commended also by Dunker ([29], p. 11), who says :

The problem of avoiding blind alleys in education is helped toward solution by bringing the different courses under one roof and one principal in order to make the transfer from one to the other possible and relatively easy.

Thus, America escapes a danger which Germany has suffered by separating her types of secondary schools. The choice of a career is postponed. When such a choice is made it can be made more intelligently because the pupil is in direct contact with courses of various types and with the people of different viewpoints. Vocational guidance is made possible and the pitiful condition of the blind-alley situation can be avoided.

The whole question of the function of secondary education can be considered adequately only after one knows what type of pupil is to attend the secondary institutions. If the attendance is to come entirely from the upper classes, as has been true to a great degree in most foreign countries, the answer to the questions of



were not equipped either mentally or by preparation to pursue high-school studies. In all probability there will always be some pupils of this sort. But the broadening of the curriculum and the adjustment of the entrance requirements which have been made by the colleges and universities have done much to relieve the trouble. Even if the problem is never completely solved, it is much better to inspire all of the pupils as individuals and provide opportunities for them, even if a few must drop out because they have not sufficient ability to profit by what is offered. The statement that high schools are not available for all the pupils is still unfortunately true, but there has been much progress in this respect, and all indications point toward still greater progress in the future.

It was shown on page 22 that American ideals necessitate first taking care of the middle classes as far as ability is concerned. Hence the tendency toward mediocrity and fixed promotion periods. But Miss Burstall's criticism is not a true picture of the general situation. School authorities will not, in general, interfere with high-school principals who seek to provide for the talented pupils. American belief in the perfectibility of the individual will see to that. The chief difficulty lies in persuading the average parent that his child is less talented than other children are. For that reason he will object to having the child put into the slow division. The difficulty arises over the slow pupils rather than over the fast ones. The solution will come as a result of the gradually growing realization of the fact that individual differences exist and must be provided for. Up to date this realization has still failed to influence our school procedure to any marked degree, but there are signs of awakening everywhere and there is much evidence to indicate that much more provision will be made, especially for the supernormal pupils. To neglect this matter, as Miss Burstall says, will result in great loss to society.

A further function of secondary education is suggested in several of the criticisms. Ayrton, in the Mosely Report ([66], p. 37), says:

The Americans are not so scholarly nor so well read as the Englishmen, but their knowledge is in better form to apply. The British system turns out a man full of knowledge and principles, while the American product is a business man with scientific training. America furnishes the rapid, bold, and successful application of science to industry.

Schick ([80], p. 156) says:

One great universal tendency pervades the educational work of America,  
 \* \* \* the tendency toward the practical utility of what is learned.

Sadler ([76], p. 128) says:

American influence on European education shows itself most conspicuously in the growing demand for better school training in view of the needs of modern industry and commerce \* \* \*. It necessitates technical training for the

masses and it also emphasizes the fact that technical training is only a part of the education which every individual is to be given abundant opportunities of enjoying.

Brereton ([8], p. 300) says:

America will soon feel the need of raising a special army of well-trained commercial travelers, thoroughly versed in modern languages, while their future captains of industry will also require to be more highly educated, not in the practice but in the theory of business, or economics, as it is called.

Thus we find recognition of the fact that the secondary school has a function to perform in educating future workers, but, as Brereton suggests, this part of the work should be broad and liberal rather than specific and practical. The function of secondary education as reflected by a composite of the criticism includes the provision of a broad liberal education for all who can profit by it, and guidance in the selection of a career with ample provisions of subject matter which is fundamental in as many callings as possible. It also includes the creation of a like-mindedness which is the best antidote for a class system and the best basis for citizenship in a democracy. It must be a finishing school and also a preparatory institution, emphasizing in each case the stimulation toward further education. Finally, it must aim to develop broadmindedness, adaptability, judgment, social sympathy, and all of those qualities which count for intelligent participation in social life as a whole.

If a comparison be made between the function of the secondary school and that of the elementary school (see p. 77 and ff.), it will be noticed that there is much overlapping. This is as it should be, because the transition from elementary to secondary education should be gradual. Children who pass from the elementary school to the high school are after all the same individuals, with much the same interests and needs. The chief distinction between the functions of the two institutions lies in the fact that the elementary school has for its chief function the control over the tools of knowledge while the high school is more directly concerned with the mastery of knowledge. Yet both of these functions are in reality determined by the same great aim—the perpetuation and growth of American ideals.

The secondary school, as has been said, must provide for a broad, liberal education, and also an education in those subjects which are fundamental to success in the various callings of life. These two phases of the function of secondary education often interfere with each other. It is generally admitted that of the two, the liberal education should come first. Disagreement arises, however, as soon as an attempt is made to answer the question as to when the emphasis should change from the liberal to the vocational and professional subjects. This problem, being common to all countries, occupies the

attention of the critics to a large extent. In all cases there is strong opposition to early specialization. The criticism of Douarche ([27], p. 23) calls attention to the argument in favor of early specialization. The idea is brought out that with the increasing complexity of modern life, one can not commence one's professional education too early, even when the neglect of general education is involved. The lawyer and the physician, for example, need so much knowledge for the exercise of their profession that it is useless to learn first the natural sciences and history. To this argument Douarche replies:

Nothing is more deceptive than this utilitarianism when pushed thus far. In reality, the higher the profession is for which the student is preparing himself, the more necessary is a broad, general education; or, in other words, the higher the intellectual level upon which specialization rests, the more effective the specialization. For the young student will always have to face social, political, moral, and religious problems. He will live in continual contact with nature, science, art, and literature. He must always live with his nation and within a certain epoch. This experience is common to each of us—to the banker as well as to the laborer, to the priest as well as to the teacher, to the lawyer as well as to the physician. The technique of our profession appears, therefore, as the least element of the common task at which we work; and if the education of the child is to be adapted to his life as a man, it is quite necessary that there be a common fund of general education in any social community.

This criticism was written in response to a tendency on the part of some of our educational leaders to overemphasize vocational and professional education in comparison with that of a broad liberal type. American public opinion seems to support Douarche in his opposition to this tendency. The average man no longer wants his son to prepare himself for the same calling in which he himself is engaged. In general he realizes that a broad basis of general education is necessary. The laboring men and the farmers are justly suspicious of a type of educational program which will equip their sons solely for the occupation which the father follows. The average American seems willing to put forth strong efforts to give his son and daughter better intellectual and social advantages than he has enjoyed. He is inclined to excuse his own ignorance by the fact that his children will possess a more liberal education than he has had. He often goes so far as to believe that if he gives his children a broad general education, he can safely leave it to them to learn a trade or take up a profession. In failing to sense the popular view in this matter, some of our vocational experts have plainly laid themselves open to the charge of unworthy propagandism. But a reaction is setting in as it always does when popular beliefs have been violated. The most recent tendency everywhere is toward extending general education at least up to 15 with differentiated courses after that time. This calls for increased differentiation in the high school but not for a narrow type of specialization.

## SPECIALIZATION IN EDUCATION.

Douarche mentions and opposes another reason for early specialization in America which is also worthy of consideration. That is the desire to teach only what appeals to the interest of the child. Against this tendency he says ([27], p. 22) :

What is the use of education if it does not mean that discrimination of good and bad instincts? The purpose of education is precisely to suppress the lower instincts in order to develop those which are more noble. It also aims, in general, to create new desires and new interests. What would modern civilization be if education could not subdue and organize our natural tastes and instinctive desires? Then, too, the child who is permitted to give free rein to his inclinations will not possess sufficient energy to triumph over his daily difficulties and will necessarily be badly prepared for the struggles of life. It is the sacred mission of education to raise man to the realization of his duties, to overcome the wicked instincts in order to strive continually toward higher and nobler ideals.

On page 503 Douarche adds :

Unfortunately the elective system always has the fault of encouraging premature specialization. It makes possible an incomplete and fragmentary education and does not insure a general education to every pupil.

In this quotation the critic is no longer speaking particularly of specialization, but is treating the question of the elective system as well. The argument applies also to giving the student the right to choose between subjects, each of which is liberal in character. Thus we come to a consideration of the American elective system. In regard to it we find a great amount of comment on the part of the critics. Most of them agree with Douarche in opposing it. Kerschesteiner ([47], p. 14) says :

If the student does not like the strict methods of any particular teacher or the difficulties of a certain course he may choose a different course and so evade the severe training. To an entirely too great an extent the American high-school student does only what he likes to do or what can be accomplished with a minimum of effort and not what really helps him intellectually.

Langlois ([51], p. 29) says :

But a course of study in order to be profitable must be rational. Is it not absurd to allow children to make such a course for themselves on the pretext that they are interested in such studies? Such freedom has been discredited by those quackish schools, which, in order to throw dust in the eyes, advertise 30 or 40 subjects on their lists of instruction and which allow free choice between bee culture, stenography, and mathematics, for example.

Clasen ([16], p. 365) says :

To permit this freedom of choice to young pupils who have no power to judge, and, who, frequently, owing to the American love of freedom, will be advised neither by their parents nor by their teachers, is an unsound arrangement in the high schools.



Miss Burstall ([11], p. 107) says:

The elective system appears to encourage superficiality and to fritter away time, while the student can never acquire that sense of the vastness of knowledge and arduousness of really good work which is one of the greatest advantages of a university education.

But the elective system also has some good points in the eyes of the critics. Douarche ([27], p. 503) says:

The system has the great advantage of developing early in the life of the student a feeling of responsibility. That which a person does voluntarily is better done than that which is imposed upon him by administrative authority.

In speaking of the American schools, Compayré ([19], p. 15) favors the extent and elasticity of the program of studies. He says:

How different from the uniform and tyrannical rules which govern European secondary education! We shall not hesitate to say that the elective system with optional courses as practiced in the American secondary schools \* \* \* confers upon these schools a sort of vitality to which the classes in our French lycées can not pretend. There, without distinction and pell-pell, pupils of every type of intellect and every social destiny are compelled to follow the same course of instruction.

The same author says ([94], p. 218) :

How can one compare without envy the supple and mobile régime of instruction, in which the opportunity to choose diversifies the studies, with the French mechanism of secondary instruction which drives a troop of students under uniform rules from class to class, nolens volens.

Walther ([89], p. 16) says:

The elective system is an agency by which the education of the head, hand, and heart is provided rather than one along narrow intellectual lines.

Ashley ([1], p. 426) says:

The elective system gives free play to the personal tastes. By freeing the pupil from distasteful studies it leaves him more time and energy to devote to those studies for which he has a natural inclination and in which he is therefore likely to do better work.

Gray, in the Mosely Report ([66], p. 170), says:

The elective system is a valuable protest against the cut-and-dried courses in the English schools. It does not disgust nor repel. It produces few if any hopeless cases. Superannuation, the artificial means by which hopeless cases in the narrow groove system are eliminated, with all of its attendant injustice, is unknown.

Such is the argument for and against the system. Some of the objections are serious and worthy of thorough consideration. The strongest objections center around allowing the child to study only what he wants to study. It is again the question of interest and effort which was discussed in Chapter IV, page 89. Here, however,

it takes the form of protest from those who favor the disciplinary subjects. They are afraid that these subjects will disappear from the curriculum if they are made elective. Experience, however, has shown that this is not true. The study of Latin, for example, has shown a remarkable tendency to persist even when it is possible to avoid taking it.

America will agree with Douarche when he says that one purpose of education is to discriminate between the good and bad instincts. They will question, however, his policy of suppression as applied to the undesirable behavior. They prefer a policy of redirection, and they believe that such redirection is possible by means of courses with prescribed prerequisites. For example, a pupil may dislike mathematics but be interested in engineering. In such a case it is far better to show that mathematics must be taken if the pupil wishes to become an engineer than to compel him to take that subject in an *ex cathedra* manner. The principle of respect for personality is involved and this is dear to the Americans. The provision of prescribed elective courses will also take care of the objection of Langlois and of the general accusation that the elective system leads to superficial and choppy work.

The argument that the pupils are too young to judge intelligently can be met by intelligent guidance and ample provisions for change if it is found that a wrong choice has been made. The tendency on the part of some pupils to shun difficult courses and unpopular teachers is inevitable; but it is not serious enough to spoil the whole plan. Furthermore, it is not entirely without compensation, since it often furnishes a valuable check upon the teacher. Courses should not be too difficult and an unpopular teacher is usually somewhat to blame. The elective system, therefore, tends to stimulate the unpopular teacher to better his policies and to improve his methods of teaching.

All of the favorable criticism will appeal to Americans. Indeed, the belief in the value of the law of effect, in the principle of respect for personality and in provision of opportunities for all classes, makes some form of the elective system a necessity. No pupil can study everything. Some elimination is unavoidable. Therefore, America must and will make use of some kind of an elective system. The values of the system, on careful consideration, far outweigh its disadvantages.

Criticism of the general organization of secondary education is not extensive. The high school is largely a continuation of the elementary school and as such it is subject to the same defects in organization. The most serious weakness is the lack of coordination with the elementary school. This was discussed on page 81. A further

serious defect which has not been mentioned is the lack of continuation schools. Blair, in the Mosely Report ([66]. p. 40), makes this statement:

Neither the German nor the American evening school is comparable to the English in either quality or quantity. This is partly because England educated "heads" and "hearts" together while in the other two countries there is more of a tendency to separate them.

The lack of a system of continuation schools is the most serious gap in the American educational system. The demands of democracy are not being met so long as such a large proportion of our people do not have opportunities for a good secondary education. To meet this need is one of our most pressing problems.

### COEDUCATION.

By far the most voluminous portion of the foreign criticism is that dealing with the subject of coeducation. Such a practice, particularly in the upper grades, is rare in Europe. In some places on the Continent, according to some of the critics, coeducation would be dangerous. It is natural, therefore, that they should wonder why it is possible and even beneficial here. There is no other question upon which the criticism is more evenly divided, or upon which it is more contradictory. All agree that one of the chief reasons why coeducation has prevailed so generally in America is because it is more economical. Some of them accuse America of making a virtue out of a necessity in this regard. Some say that through coeducation each sex stimulated the other, while perhaps an equal number say that each sex embarrasses the other. Some believe that it makes the boys more civil and the girls more self-reliant, while others are sure that it makes the boys effeminate and the girls rude and masculine. Some say that it reduces sexual tension at a critical age and thus improves sex morality, while others believe that it leads to sex immorality. Some like it because it leads to happy marriages, others say that there are too many early marriages and still others that the girls learn the imperfections of the boys and are therefore unwilling to marry at all. Those who favor the plan say that discipline is made easier, that it is more natural for boys and girls to be educated together since they are to associate with each other in life. Some like the system because it means equal opportunities for both sexes. They say it promotes a family spirit in the schools; makes boys and girls respect each other, prevents sentimentality and provides boys and girls with common interests. On the other hand, the opponents say that the work is too difficult for the girls, that the standards must therefore be lowered, that it tends to make girls dissatisfied with home life, that there are not enough of opportunities

for girls to develop themselves along the lines which are in accord with woman's destiny in the world. Some object to coeducation because it leads to a preponderance of woman teachers, while others oppose it because the male students object to the presence of girls in their classes.

This conflicting criticism is no doubt due to the fact that many of the critics have in mind the results which would ensue if the system were suddenly introduced into their own countries. In other words, they have failed to take into account the American beliefs and ideals which are back of the practice.

These beliefs and ideals are fundamental and to a large extent peculiar to America. Respect for personality and personal freedom has not been confined to men only. According to our observers, the American girl is placed more upon her own responsibility than is her European sister. The girls of Europe are more safeguarded than they are here. Under a system of coeducation it is felt that such safeguards would be impossible. This point of view is suggested by Walther ([89], p. 30) who says:

The association of girls with young men, which with us gives so much cause for misinterpretation and is even feared, is accepted as a matter of course over there. The respect which American women in general enjoy and the honor which the male sex accords to them guarantees them against injuries and attacks to which they are unfortunately so often exposed in Europe. Here women can hardly dare to go on the streets alone in the evening.

There seems to be a general agreement among the critics that American women are more likely to be respected and less likely to be molested than is the case with the women of any other country. It does not occur to the average American that coeducation is a moral danger. The relations of the sexes are based upon the belief that American girls are virtuous and that American boys and men will respect their principles of morality. Thus it is safe to put both upon their honor. Some boys and girls misuse their freedom but there are no indications that sex immorality is any greater in America than it is in the countries where girls are closely watched. The disadvantages are no greater, while the gain is immense. In fact, the only true morality is that which holds good when the individual is free to act.

The American women are also more free intellectually. Lanson ([54], p. 25) says:

The American women seem to have at least equal powers of attention, intelligence, and an equal degree of physical and mental capacity. They do not want a system of instruction organized for women, emasculated and agreeable; a culture suited for ornamental plants; \* \* \* of the kitchen garden. They want virile discipline which develops the human being in the plenitude of his consciousness and will power.

This criticism suggests the working of a force which has, temporarily at least, obscured some phases of the coeducation question. Historically school curricula have been made for boys. Girls have been challenged to show that they are the intellectual equals of men. Their best opportunity to meet this challenge has been to make good in the boy's studies. For a time at least there was a tendency to overlook the needs of the girls and require them to take what the boys must take. This tendency was greatly strengthened by the American belief in equality. The tendency to allow girls to pursue an education which is suited to their destiny in the world is still far from strong. So far as elementary education is concerned it is undoubtedly better for both sexes to study the same subjects. But in the high school, particularly in the latter years of the course, it seems much better to encourage the girls to elect those courses which are prerequisite to household arts and general homekeeping. Girls and boys may be equal intellectually, but they are not identical. Each sex has its sphere, though, of course, there is much overlapping. The most fundamental division of labor is that which exists between the work of men and the work of women. It seems therefore that the first specialization should be along these lines. The secondary curriculum should be adapted to some extent to the interests and needs of the girls. This adaptation has yet to be arranged in the majority of our high schools. The only serious objection to American coeducation is based upon the fact that these provisions have not been made. The most desirable procedure seems to be to keep the boys and girls under the same roof, but provide special courses for each sex, especially in the latter years of the course.

One thing at least is certain in this connection. America believes in the education of women, and it has provided better educational opportunities for them than are to be found in any of the countries represented in the criticism. The good results of this policy have not been overlooked by the critics. Laveleye ([56], p. 386) says:

It is the woman who has given strength to the American democracy by communicating to it a moral and religious character of a high order. \* \* \* Educate the woman and the people will be raised out of their ignorance because of her influence on the children.

On the other hand, some of the critics are not so sure of the value of education for women. Caullery ([14], pp. 88-92) says:

The American woman in a college environment usually has a more solid general culture than the man has, because she prosecuted her studies in a true spirit of culture and not as a means of arriving as rapidly as possible at success in the struggle of life. \* \* \* In a general way, the American woman is more emancipated from masculine guardianship than the European woman is: \* \* \* she sees things for herself. The prospects of life and of marriage have forced her more than in Europe to prepare to support herself. One finds her in a

number of professions which are not open to her in Europe. \* \* \* From the point of view of her studies, she has the reputation of being more industrious than the male student is. She is much less absorbed in athletics and other diversions. In the coeducational universities she has had splendid scholastic success which does not fail to excite a little masculine jealousy at times. \* \* \* A college education largely emancipates the American woman. She is educated and free. She interests herself voluntarily in many things, and particularly in problems of public utility, often in a rather shocking manner.

One can not refrain from thinking all the time that the life which she is leading in college may develop in her tastes for luxury which in many cases will present a serious obstacle to family life. The American population of the ancient stock, the depository of English civilization and Puritan tradition, is threatened with rapid disappearance. This sterility is evidently voluntary, and among its causes is the general comfort of life and economic conditions which it entails. \* \* \* College education for women tends to aggravate this evil. It has developed a strong individualism in women which leads away from the prosaic realities of life.

Caullery suggests here one of the most serious problems of all education. Its importance is being felt in all nations. Women everywhere are tending to enter into professional, economic, and industrial life. The seriousness of this tendency arises from the fact that it postpones marriage, and therefore interferes with the increase in the population. Since it is so universal, it does not seem fair to blame it alone upon the policy of educating women. It seems better to look upon the belief in the education of women as an effect rather than a cause of the trouble. The essence of the movement is the general tendency to apply the principle of democracy to women as well as men. But society has heretofore been organized on a monarchical basis, in which the men were the more or less autocratic leaders. To give woman equal rights to earn money, acquire an education, control her own affairs, and participate in political activity means a revolution in our social structure which is profound in its influence. To accomplish such a change and avoid temporary maladjustments is impossible. It is likewise impossible to return to the old conditions in which women were kept within the home in ignorance and subjection. America, in particular, can not turn back, because we have advanced more than any other nation from the old position. We are in the midst of changes which must continue. As yet the outcome is obscure, but the tendency is established. The women of all nations will receive more recognition. Equality of opportunity will be provided for them as well as for the men. This means that more occupations will be open to them and more influences to pull them away from the home and marriage. The rate of increase in the population will suffer somewhat, but there will be no disastrous results. After all, the most profound of all human instincts are back of the family, and we can trust them to guarantee its continuation in some form. In the meantime, America must con-

tinue to improve educational opportunities for girls which will be more and more in line with their opportunities and needs.

America has pledged itself to give women their rights, but the actual process is far from complete. Miss Burstall ([12], p. 274) says:

The position of women in school administration is conspicuously inferior to what it is in England. As a rule, women are not found on school boards, boards of regents, or committees of the National Education Association. The higher the education the worse the position of women. In the universities organization, initiative, administration, and government are in the hands of men. In assemblies in coeducational schools those who occupy the platform are men. This condition of things in a country where women occupy a far better position generally than anywhere in the world, and where they are given precedence in all kinds of ways, is very remarkable.

This condition is one of the imperfections which are unavoidable when conditions are in a state of transition. Since the above criticism was written the National Education Association policy has much improved, and the tendency everywhere is toward a larger recognition for women.

### EXAMINATIONS.

One other phase of secondary education deserves notice because of its absence in America. There is no general system of examinations. In general, the English critics seem to consider this a great advantage. Reichel ([66], p. 298) says:

Our schools are dominated by outside examinations and organized for the purpose of winning certificates and scholarships. \* \* \* The ordinary pupil \* \* \* knows that the prize \* \* \* is utterly beyond his reach, however hard he works. Naturally, he soon gives up the struggle and resigns himself to the conviction that headwork is not for such as him. From this incubus the American schools are remarkably free. The pupil of moderate ability is free from the pressure of external competition, and consequently takes more interest in his work.

Foster, in the Mosely Report ([66], p. 116), says:

The examinations for degrees are left to the individual teacher \* \* \*. The evils resulting from occasional abuses are less great and less widespread than the evils of the examination system in British universities. In the universities of the States there seemed to be an atmosphere of quiet study and scholarly work which is apparently continuous throughout the session and remains undisturbed by feverish outbursts of cramming such as characterize the British colleges and universities. The American system requires elaborate daily care and the guiding, watching, and recording of the student's progress, but that care does not involve a greater expenditure of energy than the organization of the unwieldy examination system of this country. Moreover, as it is spread over a large period, it can not involve the terrible weariness of the British system. From the point of view of the student, the results are far better. Slacking is impossible and the waste of time during some of the most valuable and critical periods of the young man's life is prevented.

The British teacher is compelled by force of circumstances to conceive and direct his work entirely in terms of examinations. As long as examinations control teaching \* \* \* so long will teaching continue to be academic in the worst sense of the word, cribbed, cabined, and confined. In America even the weak teacher gives stronger guidance to his pupils and produces better educational results than he does here \* \* \*. The American teacher is measured by the standard which he makes for himself, while with us the teacher has a standard imposed upon him by an external examining body which is almost inevitably academic. For the English teacher a prescribed amount of work has to be got through in a certain time whether or not such work is suited to the ability of the student or to the teacher's powers. Life is a continual rush. There is no time to deal with the mistakes of the pupils: they are simply told that they are wrong \* \* \*. The American teacher cares for the development of the class as a whole, and not mainly for that of those who will do him the most credit in answering the questions of an outsider.

Rhys, in the Mosely Report ([66], p. 315), says:

The American student is not under the pressure of an ever-growing cramming system which, like an octopus, threatens to strangle in its ubiquitous coils all that deserves to be called education.

Compayré ([19], p. 219) favors the American chain type of examinations because—

the stimulus coming as it does before the examinations is more constant and powerful. The examinations need not be taken so seriously \* \* \* since all does not depend on one throw. The difficulty is divided and efforts begin sooner.

Douarche ([27], p. 29) says:

A series of examinations accompanies the student through the four years of his college life, to sustain and stimulate him.

Judging by the foregoing criticism, America has done well to escape such a system of examinations. A modified form of the system, however, exists in some of the eastern States, and evidence is not lacking to indicate that it is in general open to the same objections as is the case in England.

For this reason, and because Americans are in general opposed to centralized authority, the examination system has not become general here. Under such conditions the foreigner at once wants to know how we maintain our standards. The answer is the accrediting system. Foster ([66], pp. 117-118) commends it heartily and gives the following reasons in its favor:

1. It strengthens and unifies the system.
2. The universities are looked upon as the counselors and friends of the high schools.
3. The barriers between university and secondary teachers are removed.
4. The teaching is made more direct, stimulating, and attractive to the pupils.
5. Better training results because the teacher and the taught are free.



6. The system provides for a carefully graded and carefully watched course of study.

7. It replaces the race-horse methods that turn the English schools into training grounds for the examination race \* \* \* upon which the boy's future depends to an alarming extent.

8. It recognizes that education is a slow process which must be spread over certain fixed periods of time; \* \* \* that there are no short cuts; \* \* \* that even though the boy may have the information to answer the questions of an outside examiner, it does not follow that he has been successfully educated.

9. It dignifies the teacher by trusting him.

10. It preserves the initiative of the teacher and gives a freshness and attractiveness to the work which it is impossible to exaggerate. \* \* \* The accrediting system is perhaps one of the most noteworthy contributions of America to educational progress.

Those who believe in the external examinations will doubtless claim that some of these advantages can also be attained through such a system, but they will have difficulty in showing that the practice does not interfere with the freedom of the teacher. A still more serious objection is the accusation that the examination system emphasizes training rather than education. The word training has an unpleasant sound to Americans in general. It suggests external authority and a lack of respect for the personality of the pupil. The crux of the whole matter seems to lie in the fact that the examination system emphasizes information and tends to neglect the needs, interests, and individual differences of the pupils. Under such a system whole-hearted, purposeful activity of the right sort seems well nigh impossible. America seems better off without it.

#### TEACHING OF MODERN LANGUAGES.

There is one sharp contrast between the criticism which applies to the elementary school and that applying to the high school. In the first case the emphasis is on method rather than content, while in the second exactly the reverse is true. Since most of the critics represent nations which do not speak the English language it is natural to expect much criticism concerning our teaching of modern languages.

Most of the critics call attention to the fact that our aims in this regard are different from those in Europe. Over there the study of modern languages is based upon commercial interest. The students wish to learn foreign languages in order to carry on intelligent conversation with their neighbors, particularly in connection with commercial dealings. But Sadler ([76], p. 153) says:

The true claims for linguistic study are not based on the advantage in commercial bargaining, but on the need for training to the highest possible point the gift of expression through which a man enjoys fullness and freedom of intercourse with other men.

The isolation of America has caused this aim to be too much neglected. Hence our language teaching does not carry over; it does not lead to further activity. As a result foreign languages are studied too often with the sole view to meet the requirements, after which the student's knowledge slowly evaporates through disuse. There is too little emphasis on thorough mastery of the foreign language with a view toward using it as a tool for the control of knowledge after school days are over. Perhaps the difficulty is unavoidable, but just the same its presence causes a lack of motive and is one cause of the poor results obtained. These results have not failed to attract the attention of our critics. Walther ([89], p. 21) thinks that the difficulty is due to the wrong sort of college entrance requirements. He says:

One sees to what perverted activities one-sided college entrance requirements lead, how they cause a chase through the literature without satisfactory results. No mental stimulation results from the acquaintance with foreign languages.

Clasen ([16], p. 366) says:

In foreign languages it is still impossible to arrive at any results worth mentioning even in a four-year course. There is only nibbling without a profound insight. Only crumbs of knowledge are possible.

The French critics complain that French is neglected. Thus Guerard ([41], p. 481-483) says:

The consequence of neglecting French in favor of German in the United States are evident and heartbreaking. A profound ignorance of modern French is inexcusable in a people which resembles us in so many respects, whose national life rests upon the same principles as ours, and who ought to appreciate and love us more than any other country. There is an almost unbelievable indifference to our better literature, and the impression that Germany has surpassed degenerate France in everything. French is even taught by German teachers at times. For the name of one French professor you will find 10 German or Scandinavian teachers; for one American who has received a French diploma you will meet 10 Ph. D's from beyond the Rhine. The French instruction in the United States is given by a personnel and in a spirit which is neither American nor French. \* \* \* In the country as a whole there are about four courses in old French to one of modern. \* \* \* Linguistics chokes out the study of literature and the Middle Ages eclipse modern times.

America has been strongly affected by German influence, and French has undoubtedly been neglected. The cause of this condition, however, is largely due to the policy of France. It has been and still is very difficult for American students to enter French universities, while the German universities have kept wide-open doors. Since the war Americans no longer desire to attend German universities. France now has an opportunity to replace Teutonic influence in this country, and it is to be hoped that she will rise to the occasion by abolishing her entrance requirements and thus make it possible for Ameri-

can students to study and learn French customs and ideals at first hand.

The fact still remains that, owing to the lack of a practical motive, our instruction in all foreign language tends to become formal and bookish, while literary appreciation and mastery are lacking. This seems to constitute our chief danger in all foreign-language instruction.

In the case of Latin, Höfer ([45], p. 23), in speaking of our exhibits at the St. Louis Fair, says:

Face to face with the generally dry results of laborious, empty translations of the ancient languages, one asks one's self again and again why the Americans teach Latin and Greek in their schools. Only in rare cases \* \* \* did the work of the pupils show any understanding of ancient life or of classical archaeology and the like. It is not a bad thing after all that Greek is disappearing from the high schools.

Walther ([89], p. 11) says:

Translating and parsing are, in most American schools, the two poles about which the whole language instruction revolves. The use of reading for etymology, synonyms, and for the acquirement of a vocabulary according to form and content are lacking and the exercises are not based upon the words most commonly used. \* \* \* The time allotted to foreign languages in high school and college is too limited and the pupils are too old. \* \* \* When the pupil studies foreign languages his time is taken up by turning through the pages of the dictionary. Such study does not aid in translating, and it hinders the appreciation of the literature. Thus the true basis of language study is lacking.

A few critics suggest the value of the direct conversational method in this connection, and it is very probable that they are right. Any change can hardly avoid being a change for the better. The application of the method, however, is too limited, the power of the traditional teacher is too strong for us to be certain of the value of the newer method, but it seems a step in the right direction. At any rate, our foreign language instruction, particularly that of Latin, will be forced to be continually on the defensive until some means of improvement is discovered. The whole thing seems to have fallen under the disciplinary concept. The idea that the content of the writings of Cæsar, Cicero, and Virgil includes matter which is interesting and beautiful does not occur to the pupils who study these works in the high school. The value of translating foreign languages as an exercise in English composition seems sadly overlooked. The idea that Latin is an important prerequisite for the study of law, medicine, pharmacy, and even for the general mastery of the English language is not emphasized. The student's aim is merely to learn enough parsing and acquire enough ability in prose composition to meet the requirements. There is no suspicion of activity leading to further activity. Latin should remain in the curriculum, but it is high time

that it should be taught in a manner that will justify it in the minds of the pupils at its true value. As a discipline it is becoming more and more questionable, but as a prerequisite to specialization and as a means of appreciating the spirit and value of ancient culture it is still very much worth while.

Much of the criticism, particularly that in the Mosely Report, is written by men who were sent over here to discover the cause of American success in industry and commerce. Hence a great deal of the criticism centers around this type of work in our schools. Shadwell ([83], p. 439) says:

Broadly, the technical education in the United States resembles the German more than the English system in that it supplies the industries from above rather than from below. It aims at the education of managers rather than that of the rank and file. But it possesses the merits of neither. It has not the specialization nor thoroughness of the one, nor the general diffusion of the other. It is so unevenly distributed and heterogeneous that classification is hardly possible. The most salient feature of the American type is its demand for college-trained men. The schools are due to private initiative and are bunched too much. They are not where they are most needed. This defect is one cause of the correspondence school. American technical education, high and low, appears to suffer from the national defect of a want of thoroughness, which arises from a craving for short cuts. Hence the correspondence schools and the attempt to teach industries in a school where there are inadequate opportunities for practical experiences. American training seems shallow and superficial.

Götte ([35], p. 236) says:

The American technical schools do not meet the demand as do those of Germany. There is no doubt that technical schools of secondary and lower rank are needed to supply the skilled workmen from native material rather than to depend on immigration. The Americans can learn more from us in regard to technical education than we can from them.

Léautey ([57], p. 701) says:

In American commercial colleges the instruction appeals too much to the memory and too little to the intellect. The instruction is too practical and requires too much hurrying. It is not vigorous enough and lacks equilibrium.

Muhlmann ([69], p. 24) says:

The instruction in the technical school is too academic, not enough emphasis is placed upon the history of industrials.

Much of the above criticism seems to get at the facts. American emphasis upon the value of a general education has tended to produce industrial leaders, and there has been a feeling that a general education is necessary for such leadership. As to the rank and file, they have merely been neglected. American respect for personality and belief in improvement have made impossible the narrow type of technical training which Germany has given to her rank and file of industrial workers. It is for that reason that we have no low

grade technical schools. The tendency is rather to postpone specialization until after the high-school course is finished. On the other hand, American restlessness combined with the lack of opportunities for a broad type of secondary education has caused many pupils to take up commercial studies too early.

There is a great need of standardization of our technical schools, and it is also true that the opportunities are too much limited because the schools are bunched in inconvenient localities. Correspondence courses have been the only alternative in many cases. On the other hand, Shadwell's suggestion that American technical schools are poorly equipped is not supported by the evidence as given by other critics. His accusation that American technical training is in general shallow and superficial is also questionable. It is true, however, that the American schools do not meet the demands as they should. We are still too dependent upon immigration for certain types of skilled workmanship. This need must be met and met quickly, but not after the German manner. It is better to be somewhat at the mercy of the immigrant than to adopt a type of training such as Germany has had.

Mere efficiency after all is not the most important thing in the eyes of the American. Our chief need seems to be a wider diffusion of technical schools, a better standardization of commercial education, and a broader basis for specialization. It is to England rather than to Germany that we must look for suggestions in this matter. Our chief hope seems to lie in the provision of a general system of part-time continuation schools upon a liberal basis, leaving the narrow vocational education to the industries themselves.

Finally, it is well to remember the unanimous verdict of the Mosely commissioners to the effect that our industrial prosperity is not due to our system of industrial schools, but rather in part, at least, to the ideals which control our general educational policies. For the present it seems better to continue to emphasize adaptability, alertness, and resourcefulness until a more general and a more systematic type of technical education can be provided.

The American stress upon manual training has attracted much attention from the critics. Muthesius ([70], p. 142) says:

The emphasis on manual training is almost overdone. In the manual-training schools an attempt is being made to replace intellectual education with the manual. This seems to be going too far, but the widespread use of manual training is very stimulating in its results. America has opened new paths and furnished an example for the whole world in both drawing and manual training. The energetic and practical people of America have vindicated points of view that could scarcely have been considered in the Old World, hampered as it is by theories and prejudices. The great importance of the two subjects is their basic value in technical and art education. America is building a good foundation and it does not matter so much that higher instruction is not

sufficiently developed and matured. Perfection of the latter will come. \* \* \* One finds no really finished cultural results, one is disturbed at every step by imperfections, yet no other country offers such a rich harvest of suggestions. Here a thousand geniuses await future development. Everything urges forward, as yet unhampered by reactionary tendencies. \* \* \* All the deficiencies of youth are compensated by the enthusiasm, cheering hope, and steadfast faith in its success.

To these values Dunker ([29], p. 36) adds the following:

There is no dodging or side-stepping of the problem. Practical and useful knowledge is gained. Truth is taught and the foundation for artistic taste is laid. Manual training develops a feeling of control over one's environment and confidence in one's self and in the future. It prevents the tendency to look with disdain upon manual work. The idea that to do decent work is an honor is one of the strongest pillars of American greatness.

The chief defects of our work in manual training are pointed out by Langlois ([51], p. 302):

The most of the teachers are practitioners without pedagogical education. It is fatal for the manual-training high school to tend to take on little by little more or less the character of a technical school, or, at least, that of a school particularly suited to young people who are destined for the technical trades. A very grave inconvenience will result from this if these young students do not follow up their secondary studies with the other students. It is to be feared that they will pass for having received an education which is less liberal and that they will be socially handicapped thereby.

From the foregoing criticism it seems that American manual training is justifiable as a part of a liberal education and as a prerequisite for intellectual work. Its dangers lie in a failure to provide trained teachers and in a tendency to remove such instruction from the general high school and put it in a special institution. Both of these dangers can easily be avoided if we do not shut our eyes to them.

While manual training is mostly for boys, a similar type of educational activity is provided for girls in the study of domestic science. In this connection, Marchis ([62], p. 14), in speaking of the training of this type of teacher, calls attention to some defects. He says:

I do not dare to judge the educative value of attempting to direct a home in connection with this instruction, but it always seemed to me that the equipment of the model cottages was luxurious and little in harmony with the future resources of the young women in their homes. I do not see very well wherein this training will prepare them sufficiently for the direction of a home on the farm which may often be situated many miles from any other habitation. Will the young woman who is expert in the direction of a house so well equipped be able to adapt herself to more simple surroundings?

Will she not feel a certain disgust when she finds herself at close quarters with the difficulties of life? \* \* \* They instruct the young students in the care to give to babies, but this instruction seemed peculiarly theoretical to me. I did not see one nursery in which the students could get practical training.

Here we have again<sup>1</sup> the question as to whether it is better to train students to meet conditions as they really exist or to inspire them with ideals of what should be. The best answer for the present seems to be to stress both sides of the question. To attempt to elevate the ideals of the remote community too quickly leads only to misunderstanding and disappointment. The people rebel against ideals handed down from above, while the students become dissatisfied with life in their home community. It would be much better to meet conditions as they are temporarily, while ever cherishing an ideal of what they should be.

Our science teaching receives some consideration. The critics, in general, approve of the laboratory method. Some of them praise it quite profusely. The older observers, however, are disposed to believe that it can not be carried out properly owing to the overburdening of the teacher. All praise the high character of the equipment. A few think that the work is too academic. Grasby ([37], p. 104) says:

I am strongly of the opinion that in fully three-fourths of the American schools in which I saw science being taught the pupils were to a large extent being loaded with indigestible facts.

A few of the critics are afraid that the laboratory method in science is being pushed too far. Miss Bramwell ([12], p. 34) says:

There is a danger of pursuing observation and experimentation in science teaching too far and of appealing to the senses alone, at stages of development in the child when reason and reflection might be appealed to and trusted.

Brereton ([8], p. 297) says:

American teaching, admirable as it is in rendering the child sensitive to externals and aiding him to store up abundantly a mass of mental impressions, seems halting and inconclusive just at the point where transition has to be made from the state of the sensuous to that of logical knowledge.

Münsterberg ([67], p. 67), who, as a representative of the German gymnasium type of instruction, is inclined to exclude scientific instruction altogether, says:

Education involving words appeals to a higher power than that based on demonstrations. Words appeal to the understanding, demonstrations to the perception. Words give us laws, demonstrations give accidental realizations. The latter can not really show us the totality of a law. They show always one special case, which as such is quite unimportant. Their importance lies in the necessity which can be expressed merely by words and never by apparatus. The deeper meaning of naturalistic instruction is by far more fully present in the book than in the instrument; and while it is easier to teach and to learn natural science when it appeals to the eye rather than to the reason, I doubt whether it has, from a higher standpoint, the same educational value.

All of these criticisms are worthy of consideration. They have been met very largely by requiring the pupil to do his own experimenting

<sup>1</sup> See p. 54.

rather than merely observing while the instructor performs the experiment. In this manner the "totality of a law" can be arrived at and there is a better opportunity to get at the "deeper meaning of naturalistic instruction" than is possible with books. The process is also more in accord with American beliefs. To the American, learning is, above all, doing. There has always been a strong undercurrent of opposition in America to bookishness in education. This is doubtless due to the fact that after all mere academic learning is undemocratic. It tends to produce a class of polished, white-handed individuals, which has never failed to stir up the fundamental antipathies of the American people in general. Hence, it is highly probable that America will continue to teach science, and that the laboratory method will continue to exist, though in a form so modified as to avoid the objections which have been given.

The critics quite generally recognize that a large part of the educational activities of the secondary school in America do not appear in the course of study. If truly valuable results are to be obtained there must be a healthy school spirit. This spirit has its source chiefly in the spontaneous activities of the students. Such activities are rather conspicuous by their absence in the secondary schools of Germany and France. In America they manifest themselves chiefly in student organizations, particularly in those of the athletic type. The German and French critics are generally favorable toward these clubs. With regard to the value of athletics, however, the critics are divided, with the majority unfavorable. Loebner, however ([58], p. 12), commends athletic activities because as a result of it "the pale student, the wall-flower type of girl, and the drunken student have almost vanished."

Concerning baseball, Weulersse ([90], p. 132) says:

Is not athletics humanizing in its nature? In a baseball game, what a training there is of individual initiative and social discipline, what exercise of silent energy, resolution, hardihood, "go ahead and pluck"; what vehemence of passion; what fighting spirit and even brutality; but yet what respect for opponents, what a desire for fair play and what peaceful submission to the sovereign decisions of the umpire.

But there is another side. Beck ([4], p. 126) says:

If the value of physical education consists in enabling the person so trained to exercise all possible combinations of movements in a moment of time and to do this almost automatically because the nerve connections are well made, then American physical training is a failure.

Langlois ([52], p. 203) says:

One-third of the students take no part in competitive athletics. Those who are weak physically can not and those who are most intelligent will not because they need the time for something else.



Coubertin ([23], p. 366) says:

The athletic training is for those who need it least. Enormous sums are wagered, and while the champions engage in this sort of exaggerated athletics their comrades are kept aside in order not to interfere with their training.

Marchis ([62], p. 17) says:

It is claimed that no one can play on the teams who is not up to standard in his studies, but I doubt that this rule is strictly applied. The winning of a big game is so important for the reputation of the school that the teachers have to close their eyes to the intellectual shortcomings of the athletes.

These dangers are real, as everyone will testify who has had experience with high-school and college athletics. To meet the objection that athletics is for the few only, classes in physical training are being organized which are compulsory for all and suited to the needs of each pupil. The maintenance of one's studies as a prerequisite to playing on the team is difficult to establish, but it has been accomplished in many cases. Most of the students are on the side lines, as Langlois suggests, but he overlooks the value of the spirit which brings them there. To "root" together for one's team is one of the most powerful means of developing cooperation and healthy school spirit. To take defeat in a sportsmanlike manner and to submit without murmuring to the decisions of the umpire is an excellent training in some of the greatest social virtues. So far as America is concerned, our minds are made up. School athletics is worth while; but it must be watched and guided by those in authority if the best results are to be obtained. It must also be remembered that our facilities for anything like general physical education are far from complete. More medical inspection is needed and better playground facilities.

Rathbone in the Mosely Report ([66], p. 258) says:

Americans are not yet fully alive to the excellent opportunities for educational work which playgrounds and play fields afford. The value of organized play and games is being recognized more and more, but there are still too many parents who look upon such activities as a waste of time. We need a much more general realization of the fact that the participation in organized play can be of far greater educational value than "exercise upon a woodpile."

Even from the standpoint of physical exercise, the playground activities are preferable to those of the woodpile type. A better type of physical education is sorely needed and there is a growing belief that compulsory health is desirable as well as compulsory education.

As to English teaching in the high school, the criticism is in general favorable, but the observers think that history is being neglected. Compayré ([19], p. 124) says, for example:

History is much neglected in both elementary and high school. Is not this the case of saying over again that the practical American, absorbed in his care for the present and the future, is disinterested and disdains the past, no longer seeing any use of studying the Old World?

This is another evidence of the effect of our remoteness. With improvement of methods of communication it will doubtless be replaced by broader ideals.

The question of method in the high school is not touched upon to any great extent specifically. Much of the criticism given in Chapter IV is plainly intended to apply to the high school also. The argument offered in connection with the criticism will usually apply equally well in the high school. One further point deserves mention here. Compayré ([20], p. 561) says that many high-school teachers show a disdain for pedagogy. This is undoubtedly a serious defect which is due to the narrow academic tendency. Knowledge is emphasized rather than the needs and interests of the pupils. The need for more professionally trained teachers in the high school was never more acute.

In one type of criticism there is an accusation that school activities take up too much time. Henning ([43], p. 377) says:

In the high schools, love-making, dancing, secret societies, and an enormous amount of daily football and baseball play the most important part. Learning is an incidental matter.

Such criticism may be deserved in some places, but it is not so in general. On the other hand, nowhere can one find the ascetic type of school surroundings which exists in some European schools. The medium course is desirable. School activities are worth a great deal. They should be encouraged to a moderate degree even if some sacrifice is at times required of the more intellectual interests.

As to the general atmosphere of the high school, Kerschensteiner ([47], p. 14) says:

The freedom of the American high school fosters individual initiative, courage, cheerfulness, good fellowship, human qualities which are just as important as the patience, persistence, endurance, and thoroughness of the German schools. This freedom also forces a comradeship between the pupils and the teachers. The whole intercourse is based more on mutual confidence than with us. This shows in the loyalty of the American student for his high school, which is unfortunately missing in Germany.

Such is the spirit of the American high school, and it may well be that the good results of such a spirit are, after all, among the most valuable parts of our secondary education. At present it seems difficult to exaggerate the value of social participation as a portion of that education which is best adapted to the needs and spirit of a democracy.

The following points have been mentioned in this chapter as growing out of the criticism which is offered: The high school has several functions to perform. It not only prepares for college, but it is also a finishing school for many of its pupils. It should as far as possible provide a course in liberal education which is suited to

the interests and aptitudes of all. It must protect its students against the narrow spirit of commercialism which demands premature specialization and must foster the resourcefulness, initiative, and adaptability which is so essential in a democracy. It must stress citizenship and social participation rather than efficiency of production. The large comprehensive type of institution is preferable to a multitude of small schools, each with its own vocational bias. The elective system is commendable, provided it is properly safeguarded. A six-year course, beginning at the age of 11 or 12 and with a break at 15, is urgently needed. Continuation schools of a modern liberal type should be provided for those who must go to work. Coeducation should continue, but special courses should be provided for the girls. The lack of an external examination system is an advantage rather than otherwise. The accrediting system should be preserved and improved. The content is varied, but some of the subjects are not taught as they should be. This is particularly true of the foreign languages and physical education. There is a great need of a higher type of professionally trained teachers.

The student activities constitute a vital part of our secondary education and are strong influences in promoting an excellent school spirit.

## Chapter VI.

### UNIVERSITIES AND COLLEGES.

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In order to understand foreign criticisms of our colleges and universities, it is necessary to remember that the universities of Europe correspond only to that portion of our university work which is on the graduate level. Europeans class our undergraduate work as secondary in character. For this reason it is quite usual to find the critics calling attention to the twofold character of our university instruction. Thus Langlois ([51], p. 294) says:

There is a confusion between graduate and undergraduate instruction. The students are often not "étudiants" but "élèves." Everybody knows that the universities of America are still on the "American plan" and that this plan means the existence of professional and scientific schools along with a college or undergraduate department which serves as a feeder, so to speak. \* \* \* Is it not to be feared that the teachers of graduate students will bring along with them undergraduate habits, requirements, and tastes in wisdom and research which will be not at all suitable? Will not the graduate work sometimes or even always be weakened by its close contact with the undergraduate? \* \* \* Original investigation supposes not only activity of mind but also leisure. Yet leisure is impossible when undergraduate work must also be looked after.

Douarche ([27], p. 490) says:

The American university will not be an institution of the first order until there is a reform of the whole system so that the undergraduate department can be taken away.

Caullery ([14], p. 29) says:

Everything which has been added to the old college and all that belongs in its train is heterogeneous. The relations of these parts to each other and to the whole have not taken on a character of definite stability.

This double function undoubtedly leads to some confusion at times, especially when graduate and undergraduate students are taught in the same class, but it has one great value. It puts the undergraduate in a stimulating environment and helps to give him ideals and ambition to continue his education. At the same time, there must be careful provisions against allowing the spirit of undergraduate instruction to interfere with the spirit of research and productive scholarship.

The latter is clearly the chief function of all true universities, but it has been late in appearing in America. Münsterberg ([67], p. 94) says:

The activity of productive scholarship adjusts itself to the financial situation \* \* \*. All the material conditions push the teachers away from pro-

ductive scholarship as strongly in the large universities as in the little colleges, where the instructor is paid like a car conductor \* \* \*. In America the ideal is the distribution of knowledge, and not respect for productive scholarship and the imparting of method. The vital forces are the great teachers rather than the great thinkers. The scholar mingles with men who have not the least ambition to contribute to human knowledge. His productive scholarship is merely tolerated \* \* \*. Men whose names may be among the noblest assets of the United States in future centuries, at a time when the names of the railroad and wheat kings will be forgotten, remain negligible quantities in the public opinion of the day.

Miss Burstall ([12], p. 43) says:

European writers on America have often noticed the comparative scarcity of the highest type of intellectual power among so large and intelligent a population, selected and mixed by immigration and possessing for so long the advantages of a widely diffused education. They ought to produce thinkers, artists, poets, and philosophers, \* \* \* creative powers in every intellectual sphere. Can it be the fault of their education that as yet they do not? Are ideals of political equality reducing all to common level?

Both of the preceding criticisms point toward a lack of encouragement in America for those who are engaged in adding to the sum of human knowledge. It is true that the influence of old college ideals is casting its shadow over the work in research. America does not object to a man's engaging in such work, but it does not encourage him to do so. It is inclined to overlook the value of productive scholarship. There is a feeling that a professor who sits behind closed doors and studies had much better be out teaching classes. This condition of affairs is dangerous, and, as Miss Burstall says, it has probably been at least partly responsible for the lack of creative intelligence in America \* \* \*. Some further means of rewarding productive scholarship should be devised; but in order to do so, one must prepare to meet the opposition of one of America's fundamental beliefs. There will be much jealousy of anything which looks like a privileged class set apart from society in general. The doctrine of equality has no place for experts, hence Americans are slow to reward expert service. The solution of the problem will doubtless be some form of compromise whereby those who possess creative intelligence will be rewarded according to their merit while they are at the same time safeguarded against withdrawing from society and forming a narrow circle of their own.

This leads to another important function of the university. It must serve the practical needs of the people. Gray ([38], p. 158) says:

Science has been studied too much in America for its own sake and has not been applied to the perfection of mechanical devices to be used in industry. It has not been hitherto sufficiently realized that the conclusions

of "scientific" science in one generation have become the industrial dynamics of the next, and that a scientist who spends his time and talents in pursuing a line of knowledge for its own sake without giving its results to the world is committing a crime against humanity; \* \* \* a crime as heinous as that of those in days of old who possessed the key of knowledge and refused to unlock to others desirous of entering in. \* \* \* There are still no settled coordinating relations between the factories and the universities. \* \* \* In recommending men for scientific work in factories too much stress appears to have been laid on mere academic qualities and too little regard paid to the question of whether the man chosen is equally fitted to deal tactfully with the managers of the concern to which he is being sent. The relations between the universities and colleges on the one hand and the manufacturing interests on the other \* \* \* still remain in a disturbed and chaotic condition in most States of the Union. These relations require to be systematized in some manner, either with or without the aid of State legislation. \* \* \* Only in this way can the United States equal the other countries of the world in the utilization of scientific knowledge, and in coordinating the results of that knowledge between academic and industrial interests.

(Caullery ([14], p. 155) says:

Some institutions of higher learning in America are in danger of becoming separated from modern life because of the emphasis on speculative science only. They have need of more contact with practical realities. \* \* \* I believe that an organization like that of the modern American university which combines pure and applied science is better in theory than that which is isolated like ours, with faculties of science in one place and with technical schools in another. This avoids the opposition between pure and applied science and at the same time keeps the university in touch with practical life.

Remington ([73], p. 55) says:

The typical American university is not an ivy-covered building with lawns \* \* \* and cloisters where monks have walked and where it is difficult to believe that telephones and railways have been invented, or that anything like the rush and fight of commercial life exists. \* \* \* There are no proctors and no dons, but a number of men as busy, as interested, as eager in putting knowledge and ideas into the students as the students are eager, interested, and busy in grabbing the ideas and knowledge for themselves.

American universities seem to have succeeded much better in meeting the practical needs of the people than the type of institution which Remington describes, yet, as Gray and Caullery say, they are still in danger. There is still a tendency to ignore the chasm which exists between the university and the needs of the people. The institutions which are supported by public tax have been compelled to meet the needs of their constituents to some extent, but even with them the good work is only begun. Even they have not yet attained a general reputation of being able to meet local needs. Industrial and commercial concerns are not calling upon the universities for men as much as they should. Even in educational matters, conditions are little better. Relatively few educational boards ever think of asking the university to recommend a school superintendent or a

normal school president. Whatever the causes of this condition may be, the fact remains that the American university is not doing that which it should do. Conditions are gradually improving, however. Some day the reputation of the universities will be so widespread that no one in need of a skilled man for an important position will think of failing to consult those who should be, and doubtless are now, in the best position to guide the right man to the right job. Such an outcome would also do more than anything else to counteract the suspicion which the common man holds against expert service in general. The universities have truly a great opportunity before them.

The peculiarities of American school organization, as discussed in Chapter II, are also reflected in the criticism which deals with the universities. Compayré ([18], p. 525) says:

America has no national university. This is due to an early provincialism and a belief in local control, together with objections to the uniformity of a national university. Such a university would not injure the attendance at other universities nor absorb them, but could serve as a guide and model for them.

The idea of a central institution which would be a center of inspiration, particularly for the training of professors for the more local colleges, normal schools, and universities, has appealed to many, but the fear of centralized control and of its almost unavoidable tendency toward red tape and bureaucracy has prevented its realization. In the meantime two or three of the privately endowed universities have become so nearly national in scope that it begins to look like our hopes of a national university were never so far from fulfillment. In some ways the present practice may be preferable, but it is open to at least one serious objection. It does not seem fair, or even safe, to leave such an important matter to be supported by private enterprise. When financial emergencies arise like the present one, private resources are not available to meet the increased demands. That necessitates an increase in the tuition rates, which in turn works a hardship on many of the students. If the privately endowed institutions are to continue to replace a national university they should receive Government aid, so that their opportunities may be within the reach of all.

Another result of the lack of centralized control is mentioned by a number of critics. The criticism of Douarche (127), p. 481) is typical. He says:

For the most part there is no appearance of system in the schools. Whatever organization there is has been originally only a group of creations which were adapted as well as possible to American needs and aiming to strengthen and ennoble American spirit and culture. The American university is hard to describe, because many institutions which often have nothing in common

with higher instruction call themselves universities. Many of these are only colleges or lycées. In fact, there is not a single institution in America which is a university in the European sense of the word. In most American universities undergraduate and graduate students are taught in the same class. This is one of their gravest faults. The professor can not devote himself to scientific work because he must always conduct his class as though he were a professor in one of our lycées.

The earlier criticism of our lack of standardization was much more severe than that of Douarche. The situation has been due to two causes. There has been a lack of central authority for one thing, but a more fundamental cause arises out of the fact that we have just emerged from a period in which our colleges were expanding into universities. Naturally, some expanded more rapidly than others, while some relapsed to their former college organization or even passed out of existence entirely. The foreign critic who only saw a cross section of this movement criticized us severely upon the assumption that the condition was a permanent one. Such was not the case, however, and we are now well on the way toward a standardization which has been worked out by the institutions themselves instead of being imposed upon them from above. This method gives every indication of being just as effective as the type of standardization which is brought about by a central authority, and it is infinitely preferable from the standpoint of American ideals.

The latter part of Douarche's criticism, however, calls attention to a difficulty which has not yet been removed. In this connection Douarche ([29], p. 23) says further:

The university instruction is merely a prolongation of the work of the college. The latter are very much like the French lycées. The lycée should give the student a mass of subject matter, while the university should teach him to use this knowledge and should give him a critical and scientific spirit. In the lycée one teaches facts and studies from books, while in the university one teaches methods and instructs himself through personal and independent investigations.

The power to do this type of work is certainly of transcendent value. It is related in a fundamental manner to the American belief in self realization and progress. Anything, therefore, that tends to interfere with it should be watched very carefully. Yet America is not ready to do away with undergraduate instruction in her universities. Such a policy would probably mean placing the undergraduate students in a multitude of small colleges. These have their good points, but they do not furnish the manifold opportunities to the student which are furnished by a large university, and they incline toward class education. There are many, therefore, who would continue the present system and extend the spirit of investigation down into the undergraduate courses. Furthermore, there is a tendency for the college when existing alone to institute a rigorous discipline.



To pass from such discipline to the absolute freedom of the university is often demoralizing. Finally, keeping the two types together tends to unite theory and practice in the same institution. For these reasons America seems likely to continue the present policy. Continual care must be exercised, however, to check all influences which will interfere with the opportunity to develop the power of original investigation.

As with the schools in general, there is much favorable comment on the democratic character of the American universities. Thus Douarche ([27], p. 20) says:

The great merit of the American universities is that they are both popular and free. They offer all of the merits and all of the faults of independent organizations, accessible to all classes of society.

The real value of this provision can only be appreciated by one who knows the situation which has resulted in other countries where the universities have been until recently open only to the boys of upper classes. America is truly fortunate to be free from such injustice.

A few of the critics have something to say concerning degrees. They agree that American degrees have in the past suffered from a lack of standardization. They are also agreed that the practice of granting degrees upon the basis of examinations conducted by the faculty of each institution is better than to have an external examining board. Barneaud ([3], p. 273) thinks that more emphasis should be put upon the oral examination, particularly for the Ph. D., since most people who get this degree expect to become teachers. He says:

One quality is indispensable to a professor; that is clear and precise exposition, \* \* \* the ability to communicate his science to others \* \* \*. Since almost all of the candidates for the doctorate expect to teach, why not require that they show themselves as competent in the transmission of knowledge as they have been in acquiring it?

Ashley ([1], p. 420) says:

One disadvantage of the American Ph. D. requirements is that they make the doctor's degree almost essential to students who desire an academic post. The best way for a man to become known outside of his university is through the publication of a doctor's thesis. The result is rather to make published work the test of fitness for an academic position, whereas it is not necessarily anything of the kind. The qualities which make a good investigator are not always those which make a good teacher and the two are not always combined. There are many admirable teachers whose published work is quite unimportant.

This points to a fallacy in the plan of basing one's standing as a teacher upon his ability to do research work. All teachers need the research spirit, but it seems that the mere possession of a doctor's degree is not sufficient basis upon which to decide the matter. This

criticism also calls attention to the lack of professional training which many of our Ph. D.'s show. Some provision should be made to remedy this defect, but it would seem better to require preliminary courses in education or preliminary practice teaching, rather than to leave the matter for the final oral examination.

The arguments given in Chapter V against the examination system also apply in full force to college entrance examinations. It seems desirable to abolish such examinations altogether and replace them with a system of mental tests for the purpose of discovering individual differences. The accrediting system is open to the objection that it does not provide for students who have the ability and the self-mastery to educate themselves independently, so that they can finish the secondary course in less than the prescribed time. The criticism of Bowden-Smith ([6], p. 7) brings out the defects of the present system.

College-entrance requirements involve red-tape procedure. The matter is decided, not upon the basis of what the student can do but upon how much credit he has. \* \* \* It is a little disheartening to find that a "class," which cost much hard work to secure and which ranked at home fairly high, represents nothing worth having abroad and that a testimonial so kind that its possessor is somewhat shy at presenting it is tossed back with the comment, "That won't do you much good." Patience and perseverance, however, will untie the knots of most American red tape. For example, the dean asked: "What did you do at your school?" and the English student could only answer: "I can now do so and so," which did not advance matters a bit. "How much Latin did you read at your school?" "Very little, but," with the courage of despair, "I could deal easily with any Latin charters for my historical work." The dean shook his head. "Have you read Cæsar at school?" "No; I only read what I wanted in illustration of my work during the last two years." "How many books of Virgil did you read?" "Two, I think"—here the student had a sudden inspiration and added, "but I read all of the others for my own amusement afterwards." The dean shrugged his shoulders hopelessly and wearily dismissed the unfortunate applicant to the department which she wished to enter.

The purpose of quoting the experience of this "unfortunate" English student with a rather overconscientious dean is not to call attention to any hostile attitude of American schools toward foreign students. There is much evidence to show that such a spirit does not exist. But there is a suggestion here of the fact that the bright pupil is not properly cared for by either the examinations or the accrediting system. After all, the real question to be decided is whether or not the student is able to do college work successfully. An examination is not always a fair test of this ability, and the accrediting system does not take care of that particularly desirable student who has the ability to work outside of school. Some new provisions are needed. Mental tests seem to meet the need, provided

they are sufficiently reliable, but it also seems desirable to work out some system of credit which is based upon the quality as well as the quantity of the work done. The present efforts to provide such a system are therefore to be encouraged.

It has been pointed out several times that the organization of education in America is such that it takes too long to complete it. Caullery ([14], p. 28) emphasizes the point when he says:

The classical colleges, with their four years of purely academic work, do not furnish direct preparation for any trade, but retain the student up to the age of 22. Professional studies should be begun before this time. The colleges will have to revise their courses so as to include some professional subjects.

This change is already under way in most of the universities, and the smaller senior colleges have at least introduced courses in education. The movement seems to be a good one, and it is to be hoped that it will continue to grow, though the lack of breadth of curriculum, lack of teachers, and lack of equipment make such growth very difficult in the case of the small college.

The chief adverse criticism and the one in which there is the most agreement is that relating to the control of American higher education. The criticism of Barneaud, though somewhat extreme at times, is a fair representation of the older type of such criticism. He says ([3], p. 271):

Too often, alas! the donor, who has established or enriched the college, exercises patronage as a right; he puts into the faculty a persona grata, and dismisses those who do not please him. \* \* \* Professors have been dismissed because they opposed certain monopolies or because they entertained certain political views.

He quoted from the London Spectator of July 31, 1897, the following statement:

The capitalists in America have relieved the churches, bought the press, filled the Federal Senate with their defenders, and, finally, they have extended their hands to the colleges. \* \* \* It is their desire that no word shall go from any mouth until it has received the approval of the conscienceless magnates. \* \* \* I am saying nothing of the State universities, in which the chairs, especially in the new States, are a prey and spoil for the politicians. I affirm, with a certainty of not being contradicted by anyone who is connected with the American colleges, that there is not in the whole organization of instruction a defect more serious, a more complete disregard for professional dignity, or a more fundamental abuse of authority, than that which is displayed in connection with the election and promotion of professors. \* \* \* As for myself, I should never have believed such things possible if I had not been a witness and a spectator of them.

These are strong words and words that are not entirely backed up by the recent criticism. Yet the question of academic freedom is

guarded. A further bad influence of the present system is that it is being imitated in the normal schools. The situation seems undemocratic, and therefore undesirable.

The present system is also detrimental in its policy concerning the recruit and advancement of professors. Thus Caullery ([14], p. 59) says:

The professors have no regular part in their recruitment and have no permanent tenure. This is due to a characteristic of American customs which has general advantages. There are no permanent positions where one can go to sleep in security and inaction at the expense of general interests. Each professor must justify his position by real activity. They are elected during good behavior or at the pleasure of the trustees. The administration has then at hand a power which it can use almost instantaneously. It is used only in rare cases, but it is none the less a real menace against which the professors are without recourse. They are totally lacking in the guaranties which higher instruction possesses in other countries.

Marchis ([62], p. 7) says:

The advancement of the professors is not based upon precise rules of choice and length of service. There exists a certain type of bargaining. When a professor feels that he is indispensable in the work which he directs he learns how to elicit from other universities more advantageous propositions from which he may profit in his actual situation. Those whom a somewhat exaggerated delicacy keeps from making overtures are the victims. The professors obtain advancement only when they ask for it.

Münsterberg ([67], p. 106) says:

The American professor can advance only by building himself up in his own institution, since the possibility of being called to other institutions depends largely upon chance; but he can build himself up in his own institution only by either busying himself with administrative troubles, by becoming a favorite with the elementary students, by being a pleasing speaker or by writing textbooks, but not by original investigation. As a result of such a system higher teachers in America are without means and too often without breeding. They are mostly men with a passive, almost indifferent type of mind, without intellectual energy, men who see in the academic career a modest, safe path of life.

This criticism undoubtedly contains elements of truth. There is not sufficient provision for the growth of the professor. This will mean that many of the best types of men will avoid entering such careers. On the other hand, the Americans believe that the really capable man will find his level. This is true if he is left free to advance. But if certain elements of our organization tend to interfere with such freedom such is not the case. America must avoid the inaction which results when the tenure and advancement is too much guarded. On the other hand, we must also avoid the opposite extreme. The golden mean seems to lie in the direction of a more democratic form of organization—some provision by which the members of the faculty may have more access to the trustees and exert more influence in their deliberations.

There is some difference of opinion as to the value of American departmental organization. Muhlman ([69], p. 12) calls attention to the fact that assistant professors should be permitted freedom of growth in their positions. He thinks that the assistant position should not be a step toward a full professorship.

Foster, in the Mosely Report ([66], p. 115), says:

Each department of an American university is an organic whole. Each teacher has the opportunity of doing that particular piece of work for which he is most suited, though he is not necessarily restricted to one piece. Thus in mathematics each pupil can get just the kind of teaching he needs, while the teacher though working in a restricted field is kept in touch with the larger aspects of mathematical teaching.

Foster, in the Mosely Report ([66], p. 109), says:

The unity of departmental organization in the university exerts a modifying influence on the teacher who is inclined to cranks and fads, both in his teaching and his examining, and by constant intercourse of all the members of the department his work becomes unified without being uniform.

All three of these criticisms seem to possess value for America. There is, unfortunately, a tendency for a difference in standing to grow up between the assistants and the head professors. The president, particularly, tends to be set upon a pedestal, as it were. Both the president and the head of the department are often selected for their positions through local or even political influences. To glorify either of these officials is objectionable, because the emphasis tends to be placed upon the ability to play politics rather than upon professional merit. A still more serious objection is the fact that it violates the American principle of equality and respect for personality. It seems much more desirable in a democracy such as ours for the educational policies to be determined by the faculty as a whole or by the department as a whole, thus making the president and the heads of departments merely representatives of the faculty or parts of the faculty in this respect. It should be the duty of these officials to carry out the wishes and directions of the faculty rather than the reverse. Under such conditions the rapidly developing class system of our higher schools could be prevented. The administrative duties of a professional nature should be in the hands of some lower-salaried assistant rather than directed by a high-salaried autocrat.

The influence of American control and organization upon college and university students receives some attention from the critics. De Martonne ([25], p. 428) thinks that—

In general the American student is followed up, guided, and watched more than the French student is. \* \* \* Each course carries with it an hour of obligatory study in which the student must review his notes and do reading prescribed by the professor, must attend recitations, and stand final examinations. This tends to destroy individual initiative.

Muhlmann ([69], p. 8) says:

The university students have no academic freedom such as the German students have, but are under a fixed compulsion as to attendance and are subjected to a finely divided examination system.

Miss Burstall ([12], p. 115) says:

American students are required to attend too many lectures a week. The students are overworked or the work done is not of a very advanced character. When we consider how much freer the discipline of American schools is than that customary in England, it seems strange that college life there should offer so narrow a field for self-direction of the individual. We feel \* \* \* that the cause of this is the exaction of 15 hours per week attendance upon lectures. The pupils need time to think, but such a privilege it seems to us few college students can ever enjoy.

Caullery says ([14], p. 154):

In accordance with old college ideals, the university has retained a practice of continual and methodical control over the work of the pupils. They are treated in this regard like boys who must be watched attentively and not like men who should be allowed to act as such. The American student is not left to himself enough. Instead of being encouraged to reflect, he is constantly guided.

On the other hand, there is a sense in which college students are more free in America than they are in Europe. The American student is more free to choose his course, and is not driven by the fear of external examinations. The law of use favors frequent practice rather than cramming. While this may interfere slightly with the student's freedom and may cause him to abandon some task in which he is engaged in order to attend class, the advantages of the plan are worthy of serious consideration. Therefore it does not seem advisable to change the present plan, at least below the graduate level. One should carefully avoid encroaching too far, however, upon the student's time for continued work and reflection.

As in the secondary school, there is much favorable comment upon student life in America in connection with the colleges and universities. Walther ([89], p. 15) thinks that the memory of happy college days is one of the causes of the liberal support which is provided for American colleges and universities. College and university fraternities are condemned as snobbish, expensive, and lacking in distinct literary and intellectual ideals. The college dormitory seems peculiarly attractive. Thus Cestre ([15], p. 28) says:

The college dormitory assures an abundant and sane life to its occupants and nourishes local patriotism. It furnishes conditions of comfort and even luxury, which the French student rarely knows.

The critics are universally attracted by the relations between the professors and the students. Barneaud ([3], p. 272) says:

The students have entire confidence in their professors. They know that they are in good hands. The most happy impression which remains to me of my visit \* \* \* is the absolute certainty which has resulted from conversation with students that they could not have more devoted or more perfect professors. I have detected among the students none of the criticism, ridicule, or unkind allusions which unfortunately have come to me in some noted schools.

Cestre ([15], p. 28) says:

The American professor opens his door at all times to those of his students who by their intellect and tact merit this favor. He descends from his professional dignity and receives them into his home and fireside.

Compayré ([19], p. 218) says:

The students do not live in barracks like ours do. The quarters are pleasant. Self-government is the rule, and there is not the least instinct of revolt.

Douarche ([27], p. 503) says:

The students have much freedom. The old morose pedagogue has disappeared and the growth of athletic games and plays in the open air has improved the moral and physical health of the college population. Moreover, it has created little by little an esprit de corps which is the surest guaranty of happy emulation and progress in American colleges.

It is noticeable that all of the preceding criticisms come from Frenchmen. It seems a convincing testimonial to the superiority of the American practice over the French in this regard.

The critics quite generally agree that American college life is democratic. The students not only respect the professors but they respect each other. The idea that college boys and even college girls can work their way without losing the respect of their schoolmates seems a never-ending cause of wonder.

The criticism with reference to the method and content of American university instruction is quite limited. De Martonne compliments our work in geography, and there is much favorable comment concerning our science teaching. Langlois objects to the content of our work in the educational psychology. The first two criticisms seem merited. In the third case the content of the work has changed so markedly for the better that the criticism no longer applies.

The criticism in method covers the points already noted under elementary and secondary education. It also centers somewhat about the research method which is universally praised.

In general, the part of the American higher education which is of most interest and which is perhaps most worthy of study and improvement is that which deals with the spirit and the organization of the work.

## Chapter VII.

### EDUCATION AS A MEANS OF CONTROL.

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The purposes of this chapter is to summarize the criticism of American education as it relates to the behavior of the pupils. The criticism divides itself conveniently into three divisions: That relating to school discipline, that relating to moral education, and that concerning religious education. In regard to discipline, the phase of the situation which seems to command most attention of the critics is the fact that it is based on respect for personality. Thus Rathbone, in the Mosely Report ([66], p. 260), says:

American discipline is from within and not from without. The children do right because they knew that by so doing the school life will be more pleasant and more helpful. In such schools when the teacher directs the children to do anything, it seems as if she is making a suggestion rather than giving a command, and because the children know that laughter, talking, and independent movement are not restricted if they do not interfere with the school work, they respond to her suggestions eagerly. The attitude of most American teachers toward their children seems to be that of a guide and friend rather than a ruler, with the result that the atmosphere of the school approximates to that of a good home: the children look happy and appear to thoroughly enjoy their school life; they are cheerful, self-reliant, and, above all, alive and natural.

Gray, in the same report ([38], p. 167), says:

There is more freedom of expression, more argumentation between teachers and pupils, with none of the uncompromising, unquestioning discipline of the English public school.

In speaking of the neatness and order with which 2,000 pupils, with no teachers on duty in the halls, changed rooms at the ends of periods in one high school which she visited, Miss Burstall ([12], p. 62) says:

One could only wonder how it is done and wish all our young people were as quiet and orderly. \* \* \* The good discipline of the American schools is always noted by English observers; the most remarkable thing about it is that it seems to come of itself. It is not maintained by artificial sanctions. Corporal punishment, the inalienable right of the English boy, is all but obsolete. \* \* \* As far as one could understand, their school discipline depends on two natural sanctions, the spirit of the Nation, and the teacher's personal force.

Mark ([63], p. 23) says:

The guiding principle in discipline is self-respecting and self-governing. On the surface discipline would often appear to have ceased to be a teacher's art and to have become a pupil's art, bound up with the mere fact of going to



school in the same way as the more mechanical parts of discipline already are, such as punctuality, neatness, and regular attendance. In reality, however, the art is the teacher's, while the act is the pupil's. From the teacher's standpoint, the art of allowing liberty which leads to self-government is quite as high as that of repressing liberty which is teacher government. This is evidenced by the almost universal testimony that Old World educators generally fail in the handling of classes of American children. For the same reason eastern teachers often fail in the west, while western teachers, on the other hand, almost invariably succeed in the east.

Quotations like the foregoing are quite common from all of the English critics. It seems to indicate that American school discipline is characterized by a spirit which is quite unique. \* \* \* Nothing of the sort seems to exist in other countries. As Mark suggests, the new spirit in school discipline has originated particularly in the western part of the country, where the influence of English practice has not been so strong. In the early days the English idea of the rule of force was attempted, but it failed to work in America. The change which has resulted, according to Mark ([63], p. 74), is due to the following causes:

1. The idea that everything that has a remote resemblance to slavery should be abolished.
2. The idea that children in a democracy must not be subjected to tyranny.
3. The idea that an appeal to faith and moral suasion is preferable to the appeal to fear as a motive.
4. The personal influence of the great educational leaders.
5. The rise of national consciousness.

All of these imply respect for personality and the belief that the real basis of all discipline is a belief in the mind of the child that it is right and just for him to act in accordance with the generally accepted standards of conduct. On such a basis the children will even behave well when the teacher is absent, a thing which is a source of wonder to foreign observers.

The change which has come over American school discipline is one of the most striking proofs of the value of basing educational procedure upon the spirit of the people in general.

The German critics tend, however, to question the soundness of the American procedure. Klemm ([48], p. 58) says:

Most people in America go on the assumption that the child will commit no punishable acts if he understands the culpability of them. This is a serious error, because the understanding alone does not keep the child from wrongdoing. It requires will power and moral strength to resist evil. There should be punishment for the sake of moral education. \* \* \* Corporal punishment in the plastic age leads or can lead to educational improvement.

Griebsch ([39], p. 615) says:

The tendency in the American school system to remain entirely superficial and to be satisfied with outward appearances is noticeable in the discipline of the school. The uninitiated person at his entrance to the school will be as-

tonished at the ideal order which prevails. With machinelike punctuality and exactness every movement of the classes or of the individual pupils takes place. Yet this discipline does not exercise the expected influence upon the growing character of the pupil. He is under constant watch and behaves either from compulsion or for the reward. His education in moral freedom is not furthered, and, in spite of such showy discipline, he knows not the respect for authority or the honor due his elders. This lack is reflected in the disdain for authority in civil life, which is the most dangerous obstacle in the way of healthy internal national development.

These quotations point to the fact which has been mentioned before,<sup>1</sup> that German critics can not understand the meaning of the practice of respecting the personality of the child. While, as Klemm says, "the understanding alone will not keep the child from doing wrong," he fails to see the powerful social forces which are at work. Then, too, the understanding is sufficient to act as a powerful control for the older pupils. They set the example and create the school spirit, which is hostile to rowdyism. Under such circumstances the younger pupils who do not as yet possess sufficient understanding are constrained through imitation and the influence of the general school spirit to act in a proper manner. Klemm calls attention to the need for will power, but overlooks the fact that will power grows only when the individual is free to choose. This point is emphasized by Passy<sup>2</sup> ([71], p. 146):

The young people must learn to conduct themselves to use the freedom which they will have later on, cost what it may. If certain faults are developed by this régime of independence, so much the worse. A presumptuous, peremptory, rash, disrespectful child is worth more than one whose will is broken. If there are those who can not have freedom without making a bad use of it, so much the worse. All that can be done is to point out; \* \* \* make the pupils feel \* \* \* the said consequences of their manner of acting. Whether or not they accept this advice is their own affair. One can not sacrifice the welfare of the greater number who profit by this freedom for that of a few. The school must furnish the armor necessary for the struggle of life and must show how to use it for the best.

The accusation of superficiality seems to be based partly on evidence gathered before the appearance of the new spirit in discipline, and partly from an overemphasis upon the exceptional cases which Passy mentions. The evidence in general will hardly substantiate Griebisch's accusation that the American child behaves either from compulsion or for the hope of reward unless such compulsion and reward be that which comes through the sentiment of his fellow pupils. It would be difficult also to prove that the American disdain for authority in civil life is due to school discipline. The truth seems to be that our practice in school control grows out of respect for the individual personality and the doctrine of equality. The chief objection to it seems to arise from a misunderstanding of

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<sup>1</sup> See pp. 22 et seq.

<sup>2</sup> See p. 23

American ideals. The system itself is one of the parts of American education of which we should be most proud.

American ideals of discipline when carried out to their logical conclusion have given rise to various forms of student government. As might be expected, the German critics are quite generally opposed to the plan. Thus Beck ([4], p. 128) says:

Pupil government has originated in America out of the conscious and voluntary opposition to a monarchical régime which grows out of false ideals. The teachers are the real leaders, but they make the pupils believe that they themselves would have sought to reproduce the famous ideal character, a power which the children do not possess. To the pupils the full truth of their relationship to the school will be obscured and silly illusion is the result.

Grimm ([40], p. 421) says:

Above all things, strength and time is lost in the caricature of self-government. \* \* \* In the majority of children it fosters premature and improper self-consciousness. \* \* \* If all the self-discipline, all the feeling of responsibility, and all the skill in government by school boys and girls is ever so highly valued, yet one must not forget that novel arrangements produce resounding results and that the school republic may be the more unreal the longer it lasts.

These criticisms are typical and call attention to the chief defect in the school city plan. When it is introduced too early into the life of the child it fosters a sort of precocity which is objectionable. It is better, undoubtedly, to have it clearly understood that the teacher is the leader. The principles upon which the school city idea rests are sound, but they do not apply to young children. The ideal seems to be to permit as much self-government as the pupils can bear, but the privileges should be withdrawn immediately if there are any evidences that the whole thing is degenerating into a system of hoodwinking the children or when it seems that their growth is being rushed.

The criticism of moral training in America is mostly of a negative character. Several of the critics see the pronounced need for such work to counteract the declining influence of the church and the home and the alarming increase in criminality. It is also pointed out that moral education is as yet poorly organized. Mark ([63], p. 61), in speaking of Dr. Dewey's school at Chicago, thinks that moral and social training is neglected.

In moral and social training one can not start too soon. The race has done more than merely leave us a history to recapitulate. It has done something for the children of the present generation which they can not and ought not to be allowed to try to work out for themselves. In their spirit of reaction from mechanical school morals \* \* \* the directors of this school have failed to see how many school duties contain in them the elements of life duties, indeed, are in a large measure the life duties at the stage of individual development to which they belong. By ceasing to ask for order and good

behavior on the ground that they are not real if they do not correspond to what the child left to himself and moved by the spur of each occasion, desires to do, the school seems to have furnished the paradox of setting the child free from social tradition in order to give a social training. \* \* \* While it is stimulating in a very high degree to see children studying raw materials, one is non-plussed by an effort to set children to work out the principles of behavior in practical independence of accepted standards. It is the fallacy of the "heuristic" method reappearing in connection with moral education.

In another connection Mark ([63], p. 180) says:

In moral training the emotions appealed to are elevating in kind; and it is not by any means in a sterner discipline that one would think to supply what seems to be lacking. It is rather in subtracting somewhat from a tendency to sentimentalism, and in adding somewhat to the intellectual drill as distinguished from intellectual pleasure. There seems to be too much of the child's doing what he pleases under the name of respecting his individuality, which almost amounts to forgetting in some measure that there are years of real immaturity during which the child is not capable of wisely choosing and can not know what is best for him.

Thus Mark ([63], pp. 180 and ff.) thinks that the American child has been allowed to do too much as he pleases. He mentions the following causes of this condition:

1. The attempt to apply the Froebelian kindergarten philosophy to the upper grades without modifying it. "Self-activity must sometimes be interpreted as prescribed activity \* \* \* that is of a self in the long run sturdier and more enduring than the self which throws the reins to its own free instincts. The child needs to learn the meaning of work."
2. The influence of the child-study movement. "This movement, particularly in the earlier years, involved too much sentimentality."
3. The influence of the child himself \* \* \* who often with his parents \* \* \* thinks himself the most worth pleasing.
4. The predominance of women teachers, "leading to a danger that education may do little to develop the fiber and sinew which come only by wrestling."

The essence of all these criticisms seems to be that the child can not receive moral training when he is doing only what he wants to do. That would mean that moral training is impossible in connection with the method of self-activity; that the performance of hard and disagreeable tasks is an essential element in such training. But such a view overlooks some of the most important elements of the situation. Not a word is said concerning regularity of habits or the respect for the rights of others, and no reference is made to the value of motive in moral education. But these are some of the things which can be developed very effectively when the children are engaged in whole-hearted purposeful activity. Mark's mistake lies in his supposition that moral training grows out of the content of the course of instruction. The truth is that it grows out of the activity of the children as they work or as they play together. Moral behavior is concerned with activity and moral training. In all probability it is gotten to

a far greater degree through play than through work; and it is possible that better moral training can result from the project method than can be gotten in any other way.

Beck is rather disposed to admit this. He ([4], p. 114) says:

No doubt the experience based on self-government and self-direction will insure a practical morality which will provide general satisfaction and even esteem among Americans. But the most elegant morality is not the most stately nor the most powerful. Since the rest of the instruction does not inculcate moral ideas, since above all morality is not connected with the personality of Jesus Christ, one may fear that the Americans must renounce their claim to true moral greatness as a product of their educational system.

Here we find a suggestion of the fundamental defect of American moral training. Conditions are such that moral and religious training have to be separated. This is truly a danger, and one for which no solution has yet appeared. Buisson ([10], p. 478) furnished a good estimate of American moral training when he said:

American moral education aims at the freedom of the will instead of bending to passive obedience. We were often struck by the spirit of liberty, freedom, joy, animation, and boldness which reveals itself in many forms. \* \* \* If there is a régime which can profess to be fortified against every spirit of hypocrisy, dissimulation, evil constraint, and compression it is the American school.

The defect of all moral training which is based upon the performance of distasteful tasks is found in the fact that it must necessarily involve the "bending to passive obedience." This is just the opposite of true will training which requires freedom of choice and action. With such freedom provided for, and with a system such as that pictured by Buisson, surely the American school will work out in some satisfactory way this difficult problem of moral training.

The criticism of religious education centers for the most part around the fact that such instruction is excluded from the schools. Some of the critics look upon this as a defect while others take the opposite point of view.

Bain ([2], p. 4) says:

American education is entirely free from the sectarian strife which is convulsing England and retarding her educational progress.

Leobner ([58], p. 14) says:

The removal of religious instruction from the course of study results in more time for general, industrial, and physical education.

There is quite a tendency to distinguish between religious education and mere sectarianism. Lanson ([54], p. 33) says:

Americans are more religious than the French \* \* \* although they have freed the schools from sectarian influences.

Passy ([71], p. 148) says:

In spite of the effect of immigration, the United States is the country of the world in which Christianity has the most influence on the morals and spirit of the people if one excepts Scotland and France \* \* \*. The public school is nonsectarian but strongly pervaded by a Christian spirit.

Siljestrom ([84], p. 16) says:

Schools may be without religious instruction and yet be pervaded with a truly moral and religious spirit. Religion may be taught by other means. Sectarial schools would only lead to such dissensions and intolerance as might eventually prove highly dangerous to civil liberty, as well as to liberty of conscience and to true Christian piety.

Dulon ([28], p. 147) says:

Americans permit no religious instruction in the schools and no religiousness which has crystallized itself into a church of some sect or other \* \* \* and therein they do right. In its proud independence the American school has its most powerful guaranty of splendid success. What has the German school not suffered through priestly encroachment and through the influence of stupid rulers! The Americans are religious and they give great weight to religion in the education of the child. Because of their religion they forbid religious instruction in the schools. Like Schiller they believe in abstract religion, religion free from the influence of crystallized church forms, free from priestly mischief and from all magisterial guardianship. In affairs of everyday life, in artistic effort, and in the results of scientific investigation religion finds its true content and becomes concrete in the spirits of free and enlightened men \* \* \*. Schools without church or religious influence are more wholesome than those in which there is a practice of beginning every school day with the reading of a short extract from the Holy Scriptures.

The American wishes to inculcate reverence for the Bible in the hearts of the children. But the daily repeated, year in and year out, continual reading of material from the Bible which is for the most part incomprehensible to the children can evidently lead only to indifference and final disinclination as a consequence, especially when looked at from the standpoint of the thoughtlessness which it inculcated. It is a means of attaining a superficial piety which has no influence upon heart and life and is as much like hypocrisy as one egg is like another.

Buisson ([10], p. 461) thinks that the exclusion of religious instruction is justifiable for another reason. He says:

We can not keep from seeing in the course adopted concerning religious education \* \* \* a justice and a respect for the rights of others which is interesting to us. This has not been a measure of political radicalism but really an act of conscience.

But the other side of the question is also well represented. Shadwell ([83], p. 389) says:

The religious difficulty has been disposed of \* \* \*. There is no religious question in the public schools and no religion. As the religious instruction has been taken out of the schools, *pari passu*, the attendance at Sunday schools has dropped off. It is easy to dispose of the religious difficulty by disposing of religion. In like manner the educational difficulty is disposed of in the Andaman

Islands \* \* \*. In the face of the corruption in public life, the growth of lawlessness, violence, and juvenile crime, the increasing prevalence of divorce, the taste for foolish, false, and degrading literature, for immoral and unwholesome amusements, the want of reverence and the failure of the churches, may not one ask, Has education, devoid of an authoritative basis of morality, nothing to do with it? How can the schools be acquitted of all responsibility if they are to be credited with any influence at all? \* \* \*.

Again, on page 397, we find:

Germany is strongest precisely in those moral and religious qualities in which the United States is conspicuously and increasingly weak, and it is impossible not to connect the difference in some measure with the two ways of disposing of the religious difficulty in the schools. The one has preserved religion, the other has thrown it away \* \* \*. In the public schools of the United States the child is taught to be his own god and the results are becoming patent.

It is interesting to compare the English estimate of German religious education as presented by Shadwell with the German estimate of the same thing as presented by Dulon and Kerschensteiner. The criticism of Dulon has already been given (p. 174). Kerschensteiner ([47], p. 11) says:

Many German school supervisors are ministers whether they are equipped for school problems or not. The complete separation of the church and state, however, is not desirable for as a result of it we find regularly, indeed I might almost say necessarily, a large number of private schools, the work of which is entirely removed from the supervision of the State. From such conditions certain real dangers arise for the State itself. Religious instruction is no less essential to popular education than instruction that is intellectual, manual, or moral in a general sense. The duty of the public school is not only to foster the religious needs of the millions but to develop them into a finer religious life. This can be done just as well even in an undenominational school, if the teachers have a genuine religious feeling.

Beck ([4], p. 121) says:

The rich American people seem to be beggars in their hearts, and suffer from arrested spiritual development, because they are not nourished by the solid bread of a religious education based upon God's word, and because of the light food of incidental religious instruction, can not satisfy their hunger.

The London Times, of 1902 ([61], p. 319), says:

There is, we suspect, a tinge of optimism in the reports<sup>2</sup> of the working of a purely secular education. It is logical and symmetrical, but it ignores one of the most powerful motive forces in men's nature, their religious feeling. In spite of all our troubles over the "religious difficulty," we should be sorry to substitute for it the barren peace of mere secularism.

Miss Burstall says:

As to religious education, America seems to be hopeless. Neither the family, the churches, nor the Sunday schools are, under modern conditions, sufficient for the work \* \* \*. America warns us of how terrible is the loss, how

<sup>2</sup> English Special Report on Education, Vol. X, XI.

great the danger to the stability and moral health of the nation if we abandon this essential element in the life and growth of humanity and of the individual.

The American solution of the "religious difficulty," so far as it has been worked out in organized form, is the Sunday school. The criticism of this solution is generally unfavorable. For example, Beck ([4], p. 120) says:

They have Sunday schools for the children, but what I saw there was not instruction. Those who taught there were not teachers. The content was not religion but only morals. They only sang, prayed, and learned by rote.

Passy ([71], p. 141) says:

The young Americans often forget their age \* \* \*. Even sacred things are treated among these people, however religious they are, with an uncere-moniousness which would shock the indifferent Europe. In the Sunday school I have often seen groups of young boys and girls whose behavior appeared to me to demand summary expulsion. Everything seemed to indicate that they had come merely to laugh and amuse themselves, and yet, an instant later, the same young man who had shot off a satirical arrow against the pastor, the superintendent, or the teacher, interrupted, in order to put some question and make some remarks of quite serious nature. These are singular manners, and the Americans agree that there is something very reprehensible in this disrespect. But how is it to be avoided, if one wishes to conserve strength of will, individual initiative, open-speaking and boldness of conception and execution? This is a problem whose solution is difficult for a popular education.

The problem is difficult, as Passy says, but America must solve it. The difficulty lies in the fact that religious forms and observances have all been involved to suit people who are accustomed to a monarchical or aristocratic régime. Now, with the rise of democracy, some type of democratic religion must be provided. America has always stood for "Freedom to worship God according to the dictates of one's own conscience." But this principle unavoidably caused a vast multiplication of religious sects, each of which was anxious to use the schools to propagate its own peculiar creed. This gave rise to sectarian rivalries and jealousies which made it necessary to exclude the Bible from the public schools, in spite of the fact that the vast majority of the American people wished, and still wish, it to remain therein. But when it came to giving up either freedom of religious belief or sectarian instruction it was the latter which had to give way. Then the Sunday school was used as a means of imparting religious instruction. Now, we know both from the criticism and from experience that the Sunday school, in spite of its recent improvement, can not meet the need. In the meantime, a dreadful harvest of criminality and immorality which greatly excels that of any other nation, and even of all other nations combined, has warned us that something further must be done. What that shall be no one knows. We can not adopt the system of



Germany because it produces a type of subservient religion which is based upon opinions handed down from above. Such a system must ever remain obnoxious to Americans in general. The English policy of government grants to sectarian institutions has been tried and proved inadequate. Yet, as Kerschensteiner says, religious instruction is essential to popular education and we can not afford "to ignore one of the most powerful motive forces of men's nature."

The situation is truly a puzzling one, yet a few facts seem to stand forth quite clearly. Although the present solution by means of the Sunday school is very unsatisfactory, yet it seems certain that America was on the right track when sectarian instruction was prohibited. By this means much energy which would have been wasted in mere controversy has been saved for useful work. Then, too, it is by no means certain that formal religious instruction is desirable. It is certainly undesirable if it involves intolerance or repression. In any case it seems true that Dulon is right when he suggests that formal Bible reading in the schools may lead to disinclination, thoughtlessness, superficial piety, and hypocrisy. The thing that we want is not so much religious instruction as religious living; and, as Kerschensteiner says, this can be had in an "undenominational school if the teachers have a genuine religious feeling." The hope for America seems to lie in this direction, and a good start has already been made. American teachers are religious, and it is quite wrong to say that the American schools are godless. In the meantime the waning spirit of sectarianism seems a hopeful symptom. People will always differ, but there will also always be a great number of points of agreement. It therefore seems possible to hope that ere long a movement will be started among all the churches which will stress the points of agreement rather than the points of difference. When this movement functions it will be possible to give religious instruction in the public schools, because all fear of propagandism will be gone.

The pessimistic critics, of whom Miss Burstall is a type, will do well to remember that religion is after all dynamic and not static. It has safely passed through transition stages before, and there is no reason to believe that it will fail this time. Religious education, like every other social activity, should readapt itself to the needs of the age and nation in which it exists. The rise of democracy and the rapid change in character and complexity of social conditions in America are truly taxing on our powers of adjustment; and while religious adjustment is always peculiarly difficult there is no evidence to show that it is impossible even in these trying times.

## SUMMARY AND CONCLUSIONS.

The criticisms which have been quoted have emphasized two fundamental principles upon which the American educational system rests. The first of these is a belief in the equality of all men. Because of a growing recognition of the importance of individual differences the original belief has been limited somewhat. Now the emphasis is on equality of opportunity. It is now recognized that true equality can exist only when there is an identity of inheritance and of environmental influence. Such conditions are, of course, impossible. In spite of these facts, however, the American Nation still insists upon political equality. The tendency has been to give this term even a broader content than was given to it by the founders of our Nation. Equal political rights have been extended to all races and are now being given to women as well as men.

The doctrine of equality has carried important implications with it. One of the most important of these is the emphasis upon the general welfare. All forms of social organization are measured by their efficiency in providing the greatest good for the greatest number. The controlling element is the majority, yet the rights of the minority are not overlooked. In matters of education, as in all other respects, the general welfare has been the first consideration. Consequently there has been temporarily a certain unavoidable neglect of the subnormal and the supernormal class. There is a general and powerful opposition to anything which savors of social privilege. Class legislation has been tabooed. There is also a tendency to look upon expert service as undemocratic, because it is felt that it tends to elevate certain individuals unduly. The result has been a tendency toward mediocrity in many respects. Productive scholarship has been discouraged. There has been a dearth of first-class musicians, poets, artists, and skilled workmen. Quantity has been looked upon as more important than quality. The qualifications of legislators, officials, teachers, and professional people in general have been kept as low as possible. Rotation in office is preferable to fixity of tenure. The principle of equality has been applied from one generation to another. Hence there is a freedom from the influence of tradition and a lack of regard for ancestry. Respect for the personality of each individual has prevailed rather than respect for the few who are highly intelligent or highly trained. Leadership has been natural rather than artificial.

The second fundamental principle is the belief in the indefinite perfectibility of the individual. This has carried with it a very general interest in education. Present achievement is looked upon as temporary and soon to be superseded by something better. This has resulted in a superficiality which is often criticized by the people of other countries. Since each individual is capable of almost unlim-

ited improvement it follows that the means of growth should be free and open to all. Each individual has an inalienable right to improve himself to the fullest extent and without interference, so long as the rights of others are not infringed upon. Adaptability, resourcefulness, initiative, self-realization, and a demand for activity which leads to further activity are looked upon as essential and have been strongly encouraged. Boundless energy and enthusiasm have combined with a wonderfully progressive spirit.

The observers indicate several respects in which the United States is in advance of their own countries in educational matters. Our educational system is open and free to all. There is a broad highway extending from the elementary school to the university. In each school, equal opportunities are extended to all without regard to sex or social class. This provision of a broad, liberal education for all social classes under the same roof is a powerful impulse toward a more perfect democracy and a stronger spirit of nationalism. Flexibility of organization in the high school and variety of opportunity are secured through the elective system. Free social participation is encouraged in all the schools and particularly in the kindergarten, which has attained its highest development in America.

While our lack of centralized control calls forth some adverse criticism, the work of the United States Bureau of Education is generally praised. The educational reports and bulletins which are published by this institution are almost without equal anywhere.

Our teachers show a spirit of progress and a growing interest in educational research. Though sadly lacking in professional training, they are respected and trusted, as is shown, in part at least, by the absence of a system of external examinations. The National Education Association is one of the most powerful organizations of its kind in the world.

Respect for personality has functioned in emphasis upon methods of teaching based on the principle of self-activity. The textbook method has been adopted as a means of promoting individual initiative and independence. The schools are pervaded by a homelike atmosphere, and the extra-mural and general social activities of the students provide splendid opportunities for social participation together with excellent will training.

On the other hand, some serious defects are pointed out. There is a dangerous lack of professionally trained teachers, while the growth of the teacher in the service is not well provided for. The freedom of the teacher is too much restricted in some respects, and teaching is not a well-established profession. More men teachers should be in the service, and the tenure should be more secure. Brutal dismissals are still possible. Better salaries for teachers

and a more adequate pension system are seriously needed. The American teacher in general is carrying a teaching load which is too heavy. Opportunities for teachers to advance without changing the level of their work should be provided.

Some serious defects in organization, too, are demanding careful attention. A more adequate adjustment of the balance between centralization and decentralization is desirable. There should be an extension of the system of conditional governmental aid so as to offer a better coordination of State sanction, local patriotism, religious influence, and individual initiative. Equality of educational opportunity for all should be provided. The rural schools should be better standardized and a first-class high-school should be within the reach of every boy and girl. Public continuation schools should be available for those who must begin work early. Our system of education is wasteful, in that it requires too much time. There is a serious gap between the elementary school and the high school. A reorganization of secondary education is highly desirable, so that those who leave school at the age of 15 shall be enabled to finish a definite portion of the work. The upper years of the college course should be either discontinued or reorganized with more technical professional or vocational bias.

In the matter of educational control there should be complete freedom from political influence. Autocracy of control should be replaced by a type which is more democratic in its nature.

While the content subjects in the elementary school should not encroach too much upon those of the form type, there is a serious need for more adequate moral and religious instruction. The curriculum of the secondary school should be enriched and enlarged so as to meet the interests and needs of the various types of pupils which attend. More adequate provisions should be made for those who are subnormal or supernormal.

Productive scholarship should be stimulated to a greater degree than is now the case, and the universities should establish a more definite connection with the practical activities of life.

Each of these defects and needs gives rise to problems which are worthy of serious study. But instead of attempting to enumerate them in detail, it seems advisable to devote a few final words to some of the broader questions, which a consideration of the criticism as a whole has suggested. The viewpoint of our observers has been entirely of the long-distance type. They have, for the most part, been unbiased by local prejudices and innocent of a desire to initiate new doctrine. Such a point of view is scarcely possible on the part of an American writer. It thus happens that the foreign observer gets a broader and truer point of view. He sees things nationally rather

than personally. He considers broad social tendencies rather than details, while the local educator is likely to reverse the process. Our leaders often initiate new and helpful reforms which either fail or grow very slowly. Why is this? May it not be because they run in opposition to, or too far ahead of, the strong current of popular belief? Is public indifference the mere inertia of weight, or is it rather an equilibrium of forces? To what extent have the people as a whole the right to pass upon new educational procedure? Are the people always right? Are there crude but powerful social forces which can be harnessed and made to work in the cause of progress? Can it be that much of our educational effort is being wasted in an overcoming resistance which is avoidable?

No general answer to these questions is possible, but it seems very much worth while to consider them more carefully hereafter. With no intention whatever to disparage the recent highly technical studies in American education, it may also be claimed that the broad point of view is after all equally important. The present study has been an effort to approach such a view through the avenue of foreign criticism. Whatever its shortcomings may be, it can be safely claimed that it is a step in the right direction and a part of a movement which should play a valuable part in the future progress and growth of our Nation.

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DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1921, No. 9

# PRESENT STATUS OF MUSIC INSTRUCTION IN COLLEGES AND HIGH SCHOOLS 1919-20

REPORT OF A STUDY MADE UNDER THE DIRECTION  
OF THE UNITED STATES BUREAU OF EDUCATION BY A  
JOINT COMMITTEE OF THE NATIONAL EDUCATION  
ASSOCIATION, MUSIC TEACHERS' NATIONAL ASSOCIA-  
TION, AND MUSIC SUPERVISORS' NATIONAL  
CONFERENCE

OSBOURNE McCONATHY, *Chairman*  
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EDWARD B. BIRGE



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# PRESENT STATUS OF MUSIC INSTRUCTION IN COLLEGES AND HIGH SCHOOLS, 1919-20.

## MUSIC IN COLLEGES.

### THE QUESTIONNAIRE.

Early in the year 1919 a questionnaire (here given on p. 10) was sent by the Bureau of Education to all the universities and colleges in the United States. A large proportion of replies was received, as 419 out of 585 institutions returned answered questionnaires.

Most of the important institutions of learning are represented in the replies and in most cases we may assume that failure to reply meant that no music credits were given.

Among the colleges which made no reply are a number which treat special subjects where music would have no place. A list of these institutions is given and shows that out of the 166 colleges failing to reply, at least 43 are colleges for special subjects. On the other hand, it is interesting to note that out of a total of 120 colleges for special subjects 33 replied that music was recognized.

The questionnaire asks data on two special subjects, namely: (a) Data regarding entrance credit; and (b) data regarding college credits.

### COLLEGE ENTRANCE CREDITS.

A table is given showing that of the 419 colleges sending replies 194 allow entrance credit in some form of music. In 190 of these colleges theoretical music is recognized for entrance credit, and 154 colleges grant entrance credit for appreciation. It is interesting also to note that applied music, meaning performance on the piano, violin, voice, etc., may be offered for entrance credit in the case of 76 colleges—a matter of interest particularly because recognition of applied music is a matter of very recent development. Credit for chorus, glee club, orchestra, etc., is allowed in 38 colleges, which would seem to indicate that as yet these subjects are not felt to be sufficiently organized or developed to represent distinct and progressive work which should warrant college entrance credit.

### COLLEGE CREDITS.

The table showing the number of colleges granting credit for music work done in college shows that a much larger number of colleges to-day are offering music work for credit than otherwise. Courses in music leading to credit are offered in 232 colleges, whereas only 187 have no such courses.

Credit for applied music toward the bachelor of arts or bachelor of science degree is granted in 112 colleges, while 203 colleges offer the degree of music bachelor or special certificates or diplomas in music.

Public-school music is taking an increasing share in college music work, 36 colleges offering courses leading to diplomas or certificates in this subject.

The results of the questionnaire justify the conclusion that the colleges and universities of the United States are taking an ever-increasing interest in the development of music as a social, cultural, and professional subject.

A tabulation of the results of the questionnaire by States is given and the offerings of each college which sent replies to the questionnaire are shown. This detailed statement is given not only to show the music offerings for such comparative study as may be desired by college men and music educators, but also to give the high-school student who is interested in music an opportunity to plan his high-school work with a view to the particular college which he may wish to attend.

### MUSIC IN HIGH SCHOOLS.

#### THE QUESTIONNAIRE.

The information regarding the status of music in the high schools of the United States, as given in the following tables, was gathered through a questionnaire prepared by a joint committee of the National Education Association, Music Teachers' National Association, and Music Supervisors' National Conference; Osbourne McConathy, chairman, Karl W. Gehrkens, Edward B. Birge; printed in the Music Supervisors' Journal, January, 1919. The Journal has a large circulation. The replies to the questionnaire were voluntary.

The replies indicate the scope and character of music work now being given in the high schools of the country rather than the extent of the work. The number of high schools represented is too small to indicate extent, although it is well known that a large proportion of the high schools of the country are offering music courses in one form or another, and in a growing number of instances are granting credit for them.

#### MUSIC COURSES OFFERED AND CREDITED.

Table No. 1 (p. 46) indicates the variety of courses offered. It shows that chorus singing in one form or another is almost universal and shows also that orchestra is becoming an increasingly important phase of high school activity. Courses in harmony and music appreciation are now common subjects in the high schools of the country. Just where the distinction lies between what is known as music appreciation and music history is not clear, though in many

schools the subject of form seems to be the chief element of study in courses listed as music appreciation.

It will be noted that credit toward graduation is granted in a large proportion of the schools offering music courses, which would seem to indicate that there is an effort to present these courses in a manner sufficiently thorough to make them compare in requirement with the other courses of the high school.

#### APPLIED MUSIC.

Instrumental music as a subject worthy of credit in the high school is receiving ever-increasing recognition. Table No. 2 indicates the variety of ways in which recognition is given to applied music and shows that not only is credit given for the study of instrumental music but that many schools in order to encourage instrumental music study own and lend instruments to the pupils. It will be noted also that credit is offered in two ways: First, for lessons taken in the school, and second, for lessons taken outside of the school under private teachers.

The proportion of schools which bear the expense of applied music lessons is small, but as this step has been taken very recently, it is fair to assume that the number of schools which have begun this practice would indicate a growing interest in the idea of the school itself offering instruction in instrumental performance.

#### CHORUS SINGING.

The difference in practice between required chorus singing and chorus singing as an elective seems to be about equally divided in the schools represented in the tabulation. Nearly all high schools offer occasional assembly singing, which is usually in addition to the regular chorus work required or elective. There seems to be a decided difference of opinion as to the desirability of requiring chorus work. Probably local conditions will be found to be the determining factor in deciding this point. The interesting point must be noted that nearly all high schools represented offer regular practice in chorus singing.

The granting of credit for chorus singing seems to be an unsettled point, as it will be noted that approximately only half of the schools grant such credit. As might be expected, a larger proportion of schools grant credit for elective chorus study than credit for required singing. Also as is to be expected, we find only a few schools offering credit for assembly singing. To what extent pupils are required to give the same thorough attention to chorus practice that they give to other credited subjects is not indicated in the replies to the questionnaire.

## GLEE CLUBS.

It is interesting to note the large proportion of boys' glee clubs represented in the table. The idea that boys are not interested in singing has been prevalent so long that doubtless this feature will come as a surprise. The quality of work done by the boys' glee clubs is not indicated by the questionnaire, but the large number of boys' glee clubs seems to promise a coming generation having greater interest in singing than the present adult generation.

It will be noted that approximately half of the boys' and girls' glee clubs receive school credit, though a smaller proportion of mixed glee clubs receive such credit. Why this is the case the questionnaire does not show.

## ORCHESTRAS.

The widespread interest in orchestral music, an interest that constantly is growing and assuming greater importance in high schools, is shown by the table of orchestras and bands. Probably no table in this pamphlet indicates more strongly the need of trained instructors for high schools. The knowledge and skill required to properly lead an orchestra or a band so that encouragement may be given the beginners, and at the same time care exercised in directing the work of the more advanced, means a demand for thorough, competent, and well-trained musicians. It is to be hoped that school authorities who are placing the young instrumentalists in the hands of music teachers will see that the right kind of instructors are engaged for this work.

The percentage of schools granting credit for work in orchestras and bands would indicate that in general the quality of this work and the amount of time and effort required are considered equivalent to work in other subjects.

## THEORETICAL MUSIC.

Courses in harmony and other theoretical studies are offered quite generally, and in a large percentage of cases are granted credit. It may be noted here that most schools that grant credit for applied music require the student receiving such credit to take at least an equal amount of work in theoretical music. It may be noted also that an increasing number of high schools are adapting their courses in theoretical music to the more general requirement of the pupils than formerly was the case, when high-school courses were merely simplifications of college and professional courses. Harmony is now considered a cultural subject as well as a professional one.

## MUSIC APPRECIATION.

The table on music appreciation (p. 51) shows that a large proportion of schools offer courses in music appreciation and in music history.

The distinction between these two subjects is not always clear, as the term "music appreciation" often includes at least certain phases of the study of history of music. As a rule, however, music appreciation is intended to offer the pupil a knowledge of the structural elements of music and to point out to the pupil the features that should be most prominently considered in listening to music performances. On the other hand, the teaching of music history is increasingly becoming a subject in which the actual music that was important in the evolution of the art is performed for the students rather than a course in facts and dates. As these subjects are offered under conditions practically the same as the other class subjects in the high school, it is natural that in most cases similar credits are granted.

#### APPLIED MUSIC.

Credit for applied music is offered in a large proportion of the high schools of the country. The piano is naturally the subject which has received the largest consideration, although other instruments are receiving an increasing share of attention: Table No. 9 shows the schools which bear the expense of the study of instrumental music and the number granting credit for outside study under private teachers. In many cases the school will offer credit under both these conditions.

The practice of owning and lending instruments to the pupils is growing, particularly as a large number of organizations in the various cities, such as commercial associations, rotary clubs, etc., are contributing funds for this purpose. There is no doubt that increasing efforts are being made so to conduct the study of instrumental music that the granting of credit represents a full equivalent to the credits allowed in other subjects.

#### HIGH-SCHOOL CREDITS FOR MUSIC.

The average requirement for graduation in the high schools of the country is 16 units. The table on page 54 shows that music credits based on this requirement for graduation are offered largely on the basis of 1 unit, 2 units, or 4 units out of the required 16. While other proportions of credit will be noted, the practice of granting credit on the three proportions just stated seems based upon well-organized systems for considering the relative value of music to the other subjects offered by the high school. Evidently schools which are thoroughly organized to present a variety of music courses find it possible to offer one unit per year, or a total of four units, whereas other schools offer credit in proportion to the possible opportunities which they can give the student for studying the subject.

## PART I.—MUSIC IN COLLEGES OF THE UNITED STATES, 1919-20.

The following questionnaire was sent to all the colleges in the United States:

### DEPARTMENT OF THE INTERIOR, BUREAU OF EDUCATION, WASHINGTON, D. C.

DEAR SIR: The information indicated herein is desired for use in a report to be prepared by a joint committee of the National Education Association, the Music Teachers' National Association, and the Music Supervisors' National Conference. The members of the committee are Messrs. Osbourne McConathy, Karl W. Gehrkens, and Edward B. Birge. The report will be published by this bureau.

Please fill and return this form with pertinent printed reports, articles, etc., to the Commissioner of Education, Washington, D. C. Return penalty envelope and labels are inclosed for the purpose, to be used without postage.

Sincerely, yours,

P. P. CLAXTON,  
*Commissioner.*

Institution.....

#### ENTRANCE CREDITS FOR WORK DONE IN MUSIC.

1. How many units of credit for entrance to college do you allow in each of the following subjects? (If practicable, please indicate number of units allowed in each subject; otherwise, please check subjects in which credit is allowed.)

- A. Theory of music: (a) Harmony.....units; (b) sight reading and ear training.....units; (c) rudiments of music or general theory.....units; (d) counterpoint.....units.
- B. Music appreciation: (a) music appreciation.....units; (b) history.....units; (c) music form.....units.
- C. Applied music: (a) Piano.....units; (b) voice ..... units; (c) violin .....units; (d) other instruments.....units.
- D. General activities: (a) Chorus singing.....units; (b) glee clubs.....units; (c) orchestra.....units; (d) band.....units.

2. Of the total credits (state number.....) required for entrance; what is the maximum number of units in music that you accept?.....

#### COLLEGE CREDIT FOR WORK DONE IN MUSIC.

3. How many semester hours of college credit to count toward the B. A., or B. S., or Ph. B. degree do you allow in each of the following subjects? (If practicable, please give number of semester hours allowed in each subject; otherwise, please check subjects in which credit is allowed.)

- A. Harmony.....semester hours; B. Counterpoint.....semester hours; C. Composition.....semester hours; D. History of music.....semester hours; E. Form and analysis.....semester hours; F. Music appreciation.....semester hours; G. Solfeggio (sight reading).....semester hours; H. Ear training.....semester hours; I. Public school methods.....semester hours; J. Applied music (performance in piano, organ, voice, violin, or other instruments).....semester hours; K. ....semester hours.

4. Of the total semester hours (state number.....) required for B. A., or B. S., of Ph. B. degree, what is the maximum number of semester hours that may be counted in music?.....

5. What recognition, in addition to the degrees mentioned above, is given to music in the form of degrees, diplomas, certificates, etc.?.....

Remarks.....

Signature..... Title.....

## SECTION I. GENERAL TABULATION.

### A. DATA REGARDING QUESTIONNAIRE.

- |  |     |
|--|-----|
| 1. Number of institutions to which questionnaire was sent (not including junior colleges)..... | 585 |
| 2. Number of replies received (not including junior colleges).....                             | 419 |

### B. DATA REGARDING ENTRANCE CREDITS (COMPILED FROM 419 REPLIES).

- |  |     |
|--|-----|
| 3. Number of colleges which allow 1 unit of entrance credit (of required 15 or 16 units) ..... | 81  |
| 4. Number of colleges which allow 2 or more units of entrance credit.....                      | 113 |
| 5. Total number of colleges which allow entrance credit in music .....                         | 194 |
| 6. Number of colleges allowing credit in theory (harmony, counterpoint, etc.)..                | 190 |
| 7. Number of colleges allowing credit in appreciation (history, form, etc.)....                | 154 |
| 8. Number of colleges allowing credit in applied music (piano, violin, etc.)...                | 76  |
| 9. Number of colleges allowing credit for chorus, glee club, orchestra, etc.)....              | 38  |

### C. DATA REGARDING COLLEGE CREDITS (COMPILED FROM 419 REPLIES).

- |   |     |
|---|-----|
| 10. Number of colleges which allow no music credits. ....                               | 187 |
| 11. Number of colleges which allow from 3 to 6 hours credit.....                        | 36  |
| 12. Number of colleges which allow from 7 to 20 hours credit.....                       | 109 |
| 13. Number of colleges which allow more than 20 hours credit.....                       | 87  |
| 14. Total number of colleges which allow credit in music .....                          | 232 |
| 15. Number of colleges which allow credit for applied music.....                        | 112 |
| 16. Number of colleges which confer the degree of Mus. Bac.....                         | 77  |
| 17. Number of colleges which grant special certificates or diplomas in music...         | 126 |
| 18. Number of colleges which grant diplomas or certificates in public school music..... | 36  |

### D. DATA REGARDING JUNIOR COLLEGES.

- |  |    |
|--|----|
| 19. Number of junior colleges to which questionnaire was sent..... | 38 |
| 20. Number of replies received from junior colleges.....           | 16 |

### E. DATA REGARDING COLLEGES FOR SPECIAL SUBJECTS.

Among the institutions from which no replies were received are the following: Religious institutions for men, 16; religious institutions for women, 5; coeducational religious institutions, 7; agricultural and mechanical, 5; technical, industrial, and polytechnical schools, 3; forestry and mining schools, 2; military schools, 5. A total of 43.

It is probable that no music credits are offered in the foregoing schools because replies were received from the following institutions stating that music received no recognition. Religious institutions for men, 27; religious institutions for women, 1; coeducational religious institutions, 1; agricultural, mechanical, and engineering, 7; technical, polytechnical, applied science schools, 7; mining schools, 4. A total of 47.

On the other hand, the following institutions of a similar character offer some recognition to music: Religious institutions for men, 10; religious institutions for women, 1; coeducational religious institutions, 3; agricultural and mechanical, 9; technical, polytechnical, and industrial, 10. A total of 33.

## SECTION II. TABULATION BY STATES.

States.	Number of colleges in State (not including junior colleges).	Number of replies received (not including junior colleges).	Number allowing 1 unit entrance credit in music out of 15 or 16.	Number allowing 2 or more units entrance credit.	Number allowing entrance credit in applied music.	Number of colleges allowing some credit in music toward the academic degree.	Number allowing more than 20 semester hours in music toward the academic degree.	Number allowing credit in applied music.
Alabama.....	10	7	2	2	3	4	0	3
Arizona.....	1	1	1	0	0	0	1	1
Arkansas.....	14	6	0	1	1	5	0	2
California.....	14	12	0	11	9	6	5	3
Colorado.....	8	8	1	2	2	4	1	2
Connecticut.....	5	5	1	1	1	2	1	2
Delaware.....	1	1	0	0	0	0	0	0
District of Columbia.....	9	4	0	2	1	3	1	1
Florida.....	6	3	0	0	0	2	0	1
Georgia.....	20	13	1	5	4	8	1	2
Hawaii.....	1	1	0	0	0	0	0	0
Idaho.....	2	1	0	1	1	1	1	0
Illinois.....	32	25	9	9	6	21	8	9
Indiana.....	19	16	5	4	2	8	2	1
Iowa.....	24	19	4	6	2	14	8	9
Kansas.....	18	15	10	3	4	12	4	7
Kentucky.....	12	10	2	0	0	3	1	1
Louisiana.....	6	3	0	3	3	3	2	2
Maine.....	5	5	0	2	0	3	0	0
Maryland.....	16	11	1	2	0	3	1	0
Massachusetts.....	20	18	4	3	3	10	4	3
Michigan.....	11	9	0	4	2	7	1	2
Minnesota.....	11	7	2	3	0	5	2	2
Mississippi.....	12	6	0	1	0	3	1	2
Missouri.....	14	8	4	1	1	4	1	2
Montana.....	3	3	0	2	1	2	1	3
Nebraska.....	11	6	2	3	3	6	2	0
Nevada.....	1	1	0	1	0	1	1	0
New Hampshire.....	3	2	0	1	0	2	1	0
New Jersey.....	7	5	1	0	0	1	1	0
New Mexico.....	3	1	0	0	0	0	0	0
New York.....	37	33	7	6	3	17	9	7
North Carolina.....	20	9	0	2	1	3	0	0
North Dakota.....	5	1	0	1	1	1	1	1
Ohio.....	40	30	8	1	3	20	9	10
Oklahoma.....	7	3	2	2	2	3	2	2
Oregon.....	8	7	3	1	2	5	1	4
Pennsylvania.....	43	30	3	7	4	13	4	7
Porto Rico.....	1	1	0	1	1	1	0	1
Rhode Island.....	2	1	0	0	0	1	0	0
South Carolina.....	16	11	0	1	1	3	0	1
South Dakota.....	7	5	0	0	0	3	2	3
Tennessee.....	21	11	3	0	2	5	0	1
Texas.....	17	9	1	2	1	4	0	1
Utah.....	2	2	0	2	1	2	2	2
Vermont.....	4	4	0	1	1	2	1	2
Virginia.....	19	13	1	3	1	6	0	2
Washington.....	5	5	0	5	3	5	3	4
West Virginia.....	5	4	1	0	0	2	0	0
Wisconsin.....	12	8	3	0	1	5	1	3
Wyoming.....	1	0	0	0	0	0	0	0
Total.....	585	419	81	113	76	247	87	112



## SECTION III. TABULATION BY INSTITUTIONS.

## ALABAMA.

*Alabama Polytechnic Institute, Auburn.*—Three units entrance credit allowed. No specification as to what kind of work is accepted. No courses in music offered, and no credit given toward the degree.

*Southern University, Birmingham.*—No entrance credit allowed, and no college credit given toward the degree.

*Howard College, Birmingham.*—Two units of entrance credit allowed, these to be chosen from the following: Harmony, sight-singing, rudiments, piano, voice, violin. A maximum of 4 hours credit allowed toward the bachelor's degree, the courses carrying credit including harmony, counterpoint, composition, history, form and analysis, and applied music.

*Judson College, Marion.*—One unit of entrance credit allowed, this to be based upon work in the following subjects: Harmony, counterpoint, history, piano, voice, violin. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation. A diploma is also awarded upon the completion of certain specified courses in music.

*Spring Hill College, Spring Hill.*—No entrance credit allowed in music, and no college credit given toward the bachelor's degree.

*University of Alabama, University.*—No entrance credit in music, but a maximum of 4 hours out of 120 allowed toward the bachelor's degree, this credit being given for work in applied music only.

*Montevalle College, Montevalle.*—A certain amount of entrance credit given for work in music, but the amount does not seem to be fixed. Credit for courses in harmony, history, form, appreciation, sight-singing, ear-training, methods, and applied music counts toward the bachelor's degree, but the maximum amount is not stated. A diploma is also awarded upon the completion of certain specified courses in music.

## ARIZONA.

*University of Arizona, Tucson.*—One unit of entrance credit allowed; this to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, chorus, glee club, orchestra, band. College credit toward the bachelor's degree is given for work in harmony, history, appreciation, and band. In addition, credit in music from other institutions is also accepted toward the degree, there being no fixed limit of hours.

## ARKANSAS.

*Henderson-Brown College, Arkadelphia.*—No entrance credit in music, but a maximum of 6 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, methods. Diplomas and certificates are awarded upon the completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*Ouachita College, Arkadelphia.*—No entrance credit allowed. A maximum of 2 hours out of 128 may be counted toward the bachelor's degree for work in music history. A certificate is awarded upon the completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*Arkansas Cumberland College, Clarksville.*—Four units of entrance credit allowed, this credit being given for work in applied music only. A maximum of 18 hours out of 128 may be counted toward the bachelor's degree, these also to be based upon applied music only.

*Central College, Conway.*—No entrance credit allowed. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including harmony and history. A diploma is also awarded upon the completion of certain specified courses in music, and the Mus. B. degree is conferred.

*Hendrix College, Conway.*—No entrance credit allowed, and no college credit given toward the degree.

*Crescent College (Junior College), Eureka Springs.*—Fours units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, chorus. A maximum of 15 hours may be counted toward the junior college diploma, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing, ear-training, methods, applied music.

*University of Arkansas, Fayetteville.*—No entrance credit allowed except when the student is a candidate for a degree or a certificate in music. A maximum of 4 hours out of 134 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, and applied music. Diplomas and certificates are also awarded upon the completion of certain specified courses in music.

#### CALIFORNIA.

*University of California, Berkeley.*—Three units of entrance credit allowed, there being no restrictions as to the kind of work to be offered. College credit toward the degree is given, there being no limit to the number of hours that may be so applied.

*Pomona College, Claremont.*—Three units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin. Applied music accepted only when accompanied by theory. A maximum of 41 hours out of 126 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, ear-training, applied music, orchestration. These and certain other requirements entitle the student to a State teacher's certificate.

*Occidental College, Los Angeles.*—Four units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, piano, voice, violin. No college credit is given toward the degree.

*University of Southern California, Los Angeles.*—Three units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form. A maximum of 15 hours (plus harmony) may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. The degree of Mus. B. is also conferred.

*Mills College, Mills College.*—Three units of entrance credit allowed, there being no specification as to the kind of work to be offered. A maximum of 45 hours out of 124 may be counted toward the bachelor's degree, the courses not being specified. A certificate is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*St. Mary's College, Oakland.*—No entrance credit allowed, and no college credit given toward the degree.

*Throop College of Technology, Pasadena.*—A certain amount of music accepted as entrance credit, the amount not being specified. No college courses in music are offered and no credit is given toward the degree.

*University of Redlands, Redlands.*—Three units of entrance credit allowed, there being no limit as to the kind of work to be accepted. College credit is offered for work in the following subjects: Harmony, counterpoint, composition, history, form

and analysis, sight-singing, ear-training, there being no limit to the number of hours that may be applied to the degree. The degree of Mus. B. is conferred.

*College of the Pacific, San Jose.*—Three units of entrance credit allowed, to be preferably in theory. A maximum of 39 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. Diplomas and certificates in public-school music are also awarded upon completion of certain specified courses. The degree of Mus. B. is conferred.

*University of Santa Clara, Santa Clara.*—Two units of entrance credit allowed for work in harmony, rudiments, appreciation, piano, violin, band, sight-singing, counterpoint, history, voice, orchestra. No credit toward the degree.

*Leland Stanford Junior University, Stanford University.*—From two to four units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, counterpoint, appreciation, history, piano, voice, violin and other instruments, chorus, glee club, orchestra, band. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses not being specified except that credit is given for choir work.

*Whittier College, Whittier.*—Three units of entrance credit allowed, these to be based upon work in harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, and other instruments. No credit toward the degree.

#### COLORADO.

*University of Colorado, Boulder.*—No entrance credit allowed, but a maximum of 20 hours out of 122 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, composition, history, appreciation.

*Colorado College, Colorado Springs.*—No entrance credit allowed, but a maximum of 20 hours may be counted toward the bachelor's degree, the courses not being specified. A diploma in music and a certificate in public-school music are awarded upon the completion of certain specified courses in music. The degree of A. B. in Fine Arts is also conferred.

*College of the Sacred Heart, Denver.*—No entrance credit, and no credit toward the bachelor's degree.

*Colorado Agricultural College, Fort Collins.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 5 hours out of 160 may be counted toward the bachelor's degree, the courses not being specified. The degree of Mus. B. is conferred.

*State School of Mines, Golden.*—No entrance credit, and no credit toward the degree.

*Colorado State Teachers College, Greeley.*—Entrance credit is allowed in any amount that an accredited high school has recognized in granting the high-school diploma. A maximum of 32 hours out of 192 may be counted toward the bachelor's degree, no specific courses being mentioned. The degree of Mus. B. is also conferred.

*Colorado Woman's College, Denver.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form. College credit toward the bachelor's degree is offered for work in the following subjects: Harmony, counterpoint, composition, history, form and analysis, no specific limit as to the number of hours having been set. The degree of Mus. B. is also conferred.

*University of Denver, University Park.*—No entrance credit in music, and no credit toward bachelor's degree.

#### CONNECTICUT.

*Trinity College, Hartford.*—One unit of entrance credit allowed, this to be based upon work in harmony. No credit toward the bachelor's degree.

*Wesleyan University, Middletown.*—No entrance credit, and no credit toward the bachelor's degree.

*Yale University (School of Music), New Haven.*—Entrance credit allowed in the following subjects: Harmony, sight-singing, counterpoint, history, piano, voice, violin, the maximum amount not being stated. A maximum of 8 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, ear-training, methods, applied music, instrumentation. A certificate of proficiency in theory is also awarded for a three-year course. The degree of Mus. B. is conferred at the end of a five-year course.

*Connecticut College for Women, New London.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, appreciation, piano, voice, violin. Credit in practical music is not accepted unless accompanied by theory. Credit for work in harmony, counterpoint, composition, instrumentation, history, form and analysis, appreciation, sight-singing, ear-training, methods, and applied music is also granted toward the bachelor's degree, those majoring in music being able to take approximately one-half of their entire course in music. (B. S. degree.)

*Connecticut Agricultural College, Storrs.*—No entrance credit, and no college credit.

#### DELAWARE.

*Delaware College, Newark.*—No entrance credit, and no college credit.

#### DISTRICT OF COLUMBIA.

*Georgetown University, Washington.*—Two units of entrance credit allowed, these to be based upon work in harmony and appreciation. No courses in music are offered, but credit is given to those coming from other institutions to the extent of "one credit in harmony and one credit in an elective branch."

*George Washington University, Washington.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, and other instruments. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training.

*Howard University (Colored), Washington.*—No entrance credit in music, and no college credit. A letter written August 7, 1918, states that the matter is under consideration but has not been worked out.

*St. John's College, Washington.*—No entrance credit, and no college credit.

#### FLORIDA.

*University of Florida, Gainesville.*—No entrance credit, and no college credit.

*Florida State College for Women, Tallahassee.*—No entrance credit. College credit is given for work in the following subjects: Harmony, counterpoint, composition, history, form and analysis, applied music, the maximum number of hours not being stated. Certificates and diplomas are also awarded upon the completion of certain specified courses in music.

*Rollins College, Winter Park.*—No entrance credit in music. A maximum of 4 hours in harmony and history may be counted toward the bachelor's degree. A diploma is also awarded upon the completion of certain specified courses in music.

#### GEORGIA.

*University of Georgia, Athens.*—No entrance credit in music, and no college credit.

*Atlanta University (Colored), Atlanta.*—No entrance credit in music, and no college credit.

*Georgia School of Technology, Atlanta.*—No entrance credit in music, and no college credit.

*Cox College and Conservatory, College Park.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, form, piano, voice, violin. A maximum of 12 hours may be counted toward the bachelor's degree, 6 of these hours being in harmony. Certificates and diplomas are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Agnes Scott College, Decatur.*—One unit of entrance credit allowed, this to be based upon work in harmony, piano, or pipe organ. Credit is given upon examination only. A maximum of 10 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, appreciation, applied music. A certificate is also awarded upon the completion of certain specified courses in music.

*Bessie Tift College, Forsyth.*—Three units of entrance credit allowed, these to be based upon work in the following subjects: Rudiments, history, piano, voice, violin. A maximum of 12 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, methods. The degree of Mus. B. is also conferred.

*Brenau College, Gainesville.*—Three units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, piano, voice, violin. A maximum of 32 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, methods, applied music. Diplomas and certificates are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Southern Female College, Lagrange.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, appreciation. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony and history. A normal certificate is awarded for a 2-year course, a certificate for a 3-year course, and the degree of Mus. B. is conferred at the end of the 4-year course.

*Mercer University, Macon.*—No entrance credit in music. A maximum of 8 hours out of 136 may be counted toward the bachelor's degree, credit being given for harmony history, theory, and glee club. The degree of B. S. C. is also conferred.

*Wesleyan Female College, Macon.*—No entrance credit in music. A maximum of 12 hours may be counted toward the bachelor's degree, the courses offered including harmony, history, and methods. Diplomas and certificates are also awarded upon completion of certain specified courses in music.

*Emory College, Oxford.*—No entrance credit in music and no credit toward the bachelor's degree.

*Shorter College, Rome.*—Two units of entrance credit allowed, these to be based upon work done in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form. A maximum of 10 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, form and analysis. A music diploma is awarded for 120 hours of work in practical music, theory, and certain academic subjects.

*Clark University (Colored), South Atlanta.*—No entrance credit in music and no credit toward the bachelor's degree.

#### HONOLULU.

*College of Hawaii, Honolulu.*—No entrance credit in music and no college credit.

## IDAHO.

*College of Idaho, Caldwell.*—Two units of entrance credit allowed, the courses not being specified. A maximum of 32 hours out of 128 may be counted toward the bachelor's degree, the courses not being specified.

## ILLINOIS.

*Illinois Wesleyan University, Bloomington.*—One unit of entrance credit allowed, this to be based upon work in harmony and history. A maximum of 4 hours out of 124 may be counted toward the bachelor's degree, the courses not being specified. Teachers' certificates and diplomas are also awarded upon the completion of certain specified courses in music.

*Blackburn College, Carlinville.*—No entrance credit in music and no credit toward the bachelor's degree.

*Carthage College, Carthage.*—Two units of entrance credit allowed, these to be based upon work in the following: Harmony, rudiments, counterpoint, appreciation, history, piano, voice. A maximum of 10 hours may be counted toward the bachelor's degree, the courses offered including harmony and history. A certificate is also awarded for the completion of a 3-year course which involves a certain amount of academic work.

*De Paul University, Chicago.*—One unit of entrance credit allowed, this to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, and other instruments. A maximum of 10 hours out of 130 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music.

*Lewis Institute, Chicago.*—One-half unit entrance credit allowed, the courses not being specified. No credit toward the bachelor's degree.

*Loyola University, Chicago.*—No entrance credit in music and no credit toward the bachelor's degree.

*University of Chicago, Chicago.*—A maximum of 5 units of entrance credit allowed, although in actual practice no more than  $2\frac{1}{2}$  units have ever been given. The courses are not specified. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree although the university offers no work in music except a course in methods. Full credit is given for work in music done in other institutions, however, provided the work in applied music is properly balanced by double the amount in theory, history, etc.

*Eureka College, Eureka.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 8 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, appreciation, methods.

*Northwestern University, Evanston.*—Two units of entrance credit allowed, these to be based upon work in harmony, sight-singing, rudiments, counterpoint, appreciation, history, form. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, ear-training, methods.

*Ewing College, Ewing.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 8 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, appreciation, sight-singing, ear-training. A diploma is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Knox College, Galesburg.*—No entrance credit in music given. A maximum of 8 hours in harmony may be counted toward the bachelor's degree. A diploma is also

awarded for the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Lombard College, Galesburg.*—One unit of entrance credit allowed, this to be based upon work in harmony, sight-singing, counterpoint, and history. A maximum of 30 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music, canon and fugue. Certificates in piano, vocal art, and public-school music are awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Monticello Seminary (Junior College), Godfrey.*—One unit of entrance credit allowed, this to consist of a combination of applied music and theory. Credit in harmony and history of music may be counted toward the junior college diploma, the amount not being specified.

*Greenville College, Greenville.*—Two units of entrance credit allowed, the courses not being specified. A maximum of 12 hours in harmony and applied music may be counted toward the bachelor's degree.

*Illinois College, Jacksonville.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, chorus, glee club, orchestra, band. A maximum of 10 hours out of 126 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation. A teachers' certificate and a conservatory diploma are also awarded upon the completion of certain specified courses in music.

*Illinois Woman's College, Jacksonville.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 32 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, form and analysis, methods, applied music. Certificates and diplomas in music and in public-school music are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Lake Forest College, Lake Forest.*—Consideration is given to music as an entrance subject but no specified amount of credit is given. Credit toward the bachelor's degree is allowed in music, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, applied music.

*McKendree College, Lebanon.*—Two units of entrance credit allowed, these to be based upon work in harmony, sight-singing, rudiments, counterpoint, appreciation, history, and form. A maximum of 24 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, ear-training, methods. Diplomas and certificates in voice, piano, and public-school music are also awarded upon the completion of certain specified courses in music.

*Monmouth College, Monmouth.*—No entrance credit in music allowed. A maximum of 10 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, form, and interpretation. A diploma is also awarded upon the completion of certain specified courses in music.

*Frances Skimer School (Junior College), Mount Carroll.*—Three units of entrance credit allowed, these to be based upon work in harmony, piano, voice, violin. A maximum of 12 hours in harmony and history of music may be counted toward the junior college diploma. A diploma is also awarded upon the completion of certain specified courses in music.

*Northwestern College, Naperville.*—Three units of entrance credit allowed, these to be based upon work in harmony, rudiments, counterpoint, history, piano, voice. Credit in harmony, counterpoint, history of music, form and analysis may be counted toward the bachelor's degree, the maximum number of hours not being specified. Diplomas

and certificates in music and a certificate in public-school music are also awarded upon the completion of certain specified courses in music.

*Bradley Polytechnic Institute, Peoria.*—One unit of entrance credit allowed, the courses not being specified. No college credit given except by special vote of the faculty.

*Rockford College, Rockford.*—Two units of entrance credit allowed, the courses not being specified. A maximum of 24 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing, ear-training, applied music. Credit in applied music is given only after the completion of 2 years of theory. A diploma is awarded for a four-year course in music, and a certificate for a three-year course.

*Augustana College and Theological Seminary, Rock Island.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 10 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, appreciation, methods, applied music, ensemble music.

*Shurtleff College, Upper Alton.*—No entrance credit in music. A maximum of 12 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, appreciation, ear-training. A diploma is also awarded upon the completion of certain specified courses in music.

*University of Illinois, Urbana.*—Two units of entrance credit allowed, these being based upon work in theory only. Two additional units in applied music (four in all) are accepted by the School of Music. Credit toward the degree is given for work in the following subjects: Harmony, counterpoint, composition, history, appreciation, applied music, the maximum amount not being stated. The degree of Mus. B. is conferred by the School of Music.

*Wheaton College, Wheaton.*—No entrance credit allowed in general, but exceptions are made in individual cases. A maximum of 8 hours out of 130 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history. A certificate in music is also awarded upon the completion of certain specified courses in music.

#### INDIANA.

*Indiana University, Bloomington.*—Five units of entrance credit allowed, the courses not being specified. A maximum of 30 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing, ear-training, methods, opera, oratorio, chorus, orchestra, symphonies, modern composers. A certificate is also awarded for courses in applied music, and for a course in public school music.

*St. Joseph's College (Junior College), Collegville.*—No entrance credit in music given, and no credit toward the degree.

*Wabash College, Crawfordsville.*—No entrance credit in music given, and no credit toward the degree.

*Earlham College, Earlham.*—Two units of entrance credit allowed, these to be based upon work in harmony, counterpoint, appreciation, history, and chorus. A maximum of 18 hours out of 120 may be counted toward the A. B. degree, the courses offered including the following: Harmony, counterpoint, history, appreciation, methods. A diploma in music is also awarded upon the completion of certain specified courses in music.

*Concordia College (Junior College), Fort Wayne.*—No entrance credit in music, and no credit toward the bachelor's degree.

*Franklin College, Franklin.*—No entrance credit in music in general, but exceptions are made in the case of individual students. A maximum of 6 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following:



Harmony, history, form and analysis, appreciation. A diploma is also awarded upon the completion of certain specified courses in music.

*Goshen College, Goshen.*—Entrance credit is allowed for work in harmony, counterpoint, sight-singing, history, and form, the number of units not being specified. A maximum of 18 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, and sight-singing. Diplomas and teachers' certificates, as well as a certificate in public school music, are conferred upon the completion of certain specified courses.

*De Pauw University (School of Music), Greencastle.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 6 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, composition, history, form and analysis. A certificate in public school music is awarded upon the completion of a two-year course. The degree of Mus. B. is conferred.

*Hanover College, Hanover.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 32 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, applied music. A diploma is also awarded upon the completion of certain specified courses in music.

*Butler College, Indianapolis.*—Two units of entrance credit allowed, the courses not being specified. A maximum of 6 hours may be counted toward the bachelor's degree, the courses offered including harmony and history of music only.

*Purdue University, Lafayette.*—No entrance credit in music, and no credit toward the bachelor's degree.

*Union Christian College, Merom.*—One unit of entrance credit allowed for chorus work. A maximum of 8 hours out of 128 may be counted toward the bachelor's degree, the courses offered including harmony and history of music only. Certificates and diplomas are also awarded upon the completion of certain specified courses in music.

*St. Mary's College, Notre Dame.*—No entrance credit in music except in the case of music students, and no credit toward the bachelor's degree except in the case of students working for the degree of Mus. B.

*University of Notre Dame, Notre Dame.*—One unit of entrance credit in music allowed, the courses not being specified. No credit toward the bachelor's degree.

*Oakland City College, Oakland City.*—No entrance credit in music, but courses in harmony and methods of public school music are credited toward the bachelor's degree. Diplomas in piano and voice are also awarded upon the completion of certain specified courses in music.

*St. Meinrad Seminary, St. Meinrad.*—No entrance credit in music, and no credit toward the bachelor's degree.

*Rose Polytechnic Institute, Terre Haute.*—One-half unit of entrance credit allowed, the courses not being specified. No credit toward the degree.

*Vincennes University, Vincennes.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin. No credit toward the bachelor's degree, but diplomas and teachers' certificates are awarded upon the completion of certain specified courses in music.

#### IOWA.

*Iowa State College of Agriculture and Mechanical Arts, Ames.*—Two units of entrance credit allowed, the courses not being specified. A maximum of 8 hours in harmony may be counted toward the bachelor's degree.

*Iowa State Teachers College, Cedar Falls.*—Two units of entrance credit allowed, these to be based upon work in harmony, rudiments, appreciation, and history. A

maximum of 28½ hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, form and analysis, sight-singing, methods.

*Coe College, Cedar Rapids.*—One unit of entrance credit allowed, this to be based upon work in harmony and voice. A maximum of 44 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, form and analysis, methods, and applied music. Certificates of proficiency in practical music and in public school music are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Wartburg College, Clinton.*—No entrance credit in music, and no credit toward the bachelor's degree.

*Des Moines College, Des Moines.*—Four units of entrance credit allowed, these to be based upon work in harmony, sight-singing, counterpoint, appreciation, history, form. A maximum of 32 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. A certificate in public school music is also awarded upon the completion of certain specified courses. The degree of Mus. B. is conferred.

*Drake University, Des Moines.*—Two units of entrance credit allowed, these to be based upon work in harmony, sight-singing, rudiments, history. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, composition, history, methods, and applied music.

*Dubuque College, Dubuque.*—Two units of entrance credit allowed in music, these to be based upon work in harmony, sight-singing, appreciation, and chorus. A maximum of 30 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, methods, and applied music. A diploma in violin is also awarded upon the completion of certain specified courses in music.

*Parsons College, Fairfield.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis. Soloists' diplomas as well as certificates in public school music are awarded upon the completion of certain specified courses of study. The degree of Mus. B. is conferred.

*Grinnell College, Grinnell.*—No entrance credit in music. A maximum of 32 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, and applied music. A diploma in music and a certificate in public school music are also awarded upon the completion of certain specified courses. The degree of Mus. B. is conferred.

*Simpson College, Indianola.*—No entrance credit in music. A maximum of 26 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, history, and appreciation.

*State University of Iowa, Iowa City.*—Two units of entrance credit allowed, these to be based on work in harmony, sight-singing, rudiments, counterpoint, appreciation, history. A maximum of 15 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, sight-singing, ear-training, methods, applied music. The degree of Mus. B. is conferred.

*Ellsworth College, Iowa Falls.*—One unit of entrance credit allowed, this to be based upon work in harmony, rudiments, appreciation, history, and chorus. A maximum of 18 hours out of 120 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, and applied music. Certificates and diplomas are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Iowa Wesleyan College, Mount Pleasant.*—No entrance credit in music allowed. A maximum of 8 hours out of 128 may be counted toward the bachelor's degree, the courses offered including harmony and history of music only. A certificate is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Cornell College, Mount Vernon.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 26 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, and applied music. Diplomas in piano, voice, etc., as well as certificates in public school music are awarded upon the completion of certain specified courses in music.

*Penn College, Oskaloosa.*—No regulation concerning entrance credits in music, but probably one unit would be taken for work in harmony. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, sight-singing, ear-training, and applied music. A certificate is also awarded upon the completion of certain specified courses in music.

*Central University of Iowa, Pella.*—One unit of entrance credit allowed in music for work done in harmony and history. No credit toward the bachelor's degree.

*Morningside College, Sioux City.*—No entrance credit in music. A maximum of 10 hours out of 120 may be counted toward the bachelor's degree for work in theory only. A diploma is also awarded upon the completion of certain specified courses in music.

*Buena Vista College, Storm Lake.*—One unit of entrance credit allowed, this to be based on work in harmony, rudiments, and piano. If practical music is offered it must be accompanied by theory. No credit toward the bachelor's degree. The degree of Mus. B. is conferred.

*St. Ambrose College, Davenport.*—No entrance credit in music, and no credit toward the bachelor's degree.

#### KANSAS.

*Midland College, Atchison.*—One unit of entrance credit allowed, this to be based upon work in the following subjects: Harmony, appreciation, piano, voice, violin. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree. The courses offered include the following: Harmony, counterpoint, appreciation, applied music. Diplomas and certificates are also awarded upon the completion of certain special courses in music.

*St. Benedict's College, Atchison.*—No entrance credit allowed in music and no credit toward the degree.

*Baker University, Baldwin City.*—One unit of entrance credit allowed, this to be based upon work in the following subjects: Harmony, sight-singing, rudiments of music, counterpoint, appreciation, history, form. A maximum of 21 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, methods. A certificate is awarded for 90 hours of work and a certificate in public school music is also given upon the completion of certain special courses. The degree of Mus. B. is conferred.

*The College of Emporia, Emporia.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 24 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, sight-singing and ear-training, methods, applied music. Certificates in piano, voice, and public school music are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Kansas City University, Kansas City.*—One unit of entrance credit in music allowed, the courses not being specified. Credit toward the bachelor's degree is given for work in harmony, counterpoint, and music history, the amount not being specified.

*University of Kansas, Lawrence.*—One unit of entrance credit in music allowed, the courses not being specified. A maximum of 15 hours out of 120 may be counted

maximum of 28½ hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, form and analysis, sight-singing, methods.

*Coe College, Cedar Rapids.*—One unit of entrance credit allowed, this to be based upon work in harmony and voice. A maximum of 44 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, form and analysis, methods, and applied music. Certificates of proficiency in practical music and in public school music are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Wartburg College, Clinton.*—No entrance credit in music, and no credit toward the bachelor's degree.

*Des Moines College, Des Moines.*—Four units of entrance credit allowed, these to be based upon work in harmony, sight-singing, counterpoint, appreciation, history, form. A maximum of 32 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. A certificate in public school music is also awarded upon the completion of certain specified courses. The degree of Mus. B. is conferred.

*Drake University, Des Moines.*—Two units of entrance credit allowed, these to be based upon work in harmony, sight-singing, rudiments, history. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, composition, history, methods, and applied music.

*Dubuque College, Dubuque.*—Two units of entrance credit allowed in music, these to be based upon work in harmony, sight-singing, appreciation, and chorus. A maximum of 30 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, methods, and applied music. A diploma in violin is also awarded upon the completion of certain specified courses in music.

*Parsons College, Fairfield.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis. Soloists' diplomas as well as certificates in public school music are awarded upon the completion of certain specified courses of study. The degree of Mus. B. is conferred.

*Grinnell College, Grinnell.*—No entrance credit in music. A maximum of 32 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, and applied music. A diploma in music and a certificate in public school music are also awarded upon the completion of certain specified courses. The degree of Mus. B. is conferred.

*Simpson College, Indianola.*—No entrance credit in music. A maximum of 26 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, history, and appreciation.

*State University of Iowa, Iowa City.*—Two units of entrance credit allowed, these to be based on work in harmony, sight-singing, rudiments, counterpoint, appreciation, history. A maximum of 15 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, sight-singing, ear-training, methods, applied music. The degree of Mus. B. is conferred.

*Ellsworth College, Iowa Falls.*—One unit of entrance credit allowed, this to be based upon work in harmony, rudiments, appreciation, history, and chorus. A maximum of 18 hours out of 120 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, and applied music. Certificates and diplomas are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Iowa Wesleyan College, Mount Pleasant.*—No entrance credit in music allowed. A maximum of 8 hours out of 128 may be counted toward the bachelor's degree, the courses offered including harmony and history of music only. A certificate is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Cornell College, Mount Vernon.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 26 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, and applied music. Diplomas in piano, voice, etc., as well as certificates in public school music are awarded upon the completion of certain specified courses in music.

*Penn College, Oskaloosa.*—No regulation concerning entrance credits in music, but probably one unit would be taken for work in harmony. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, sight-singing, ear-training, and applied music. A certificate is also awarded upon the completion of certain specified courses in music.

*Central University of Iowa, Pella.*—One unit of entrance credit allowed in music for work done in harmony and history. No credit toward the bachelor's degree.

*Morningside College, Sioux City.*—No entrance credit in music. A maximum of 10 hours out of 120 may be counted toward the bachelor's degree for work in theory only. A diploma is also awarded upon the completion of certain specified courses in music.

*Buena Vista College, Storm Lake.*—One unit of entrance credit allowed, this to be based on work in harmony, rudiments, and piano. If practical music is offered it must be accompanied by theory. No credit toward the bachelor's degree. The degree of Mus. B. is conferred.

*St. Ambrose College, Davenport.*—No entrance credit in music, and no credit toward the bachelor's degree.

#### KANSAS.

*Midland College, Atchison.*—One unit of entrance credit allowed, this to be based upon work in the following subjects: Harmony, appreciation, piano, voice, violin. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree. The courses offered include the following: Harmony, counterpoint, appreciation, applied music. Diplomas and certificates are also awarded upon the completion of certain special courses in music.

*St. Benedict's College, Atchison.*—No entrance credit allowed in music and no credit toward the degree.

*Baker University, Baldwin City.*—One unit of entrance credit allowed, this to be based upon work in the following subjects: Harmony, sight-singing, rudiments of music, counterpoint, appreciation, history, form. A maximum of 21 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, methods. A certificate is awarded for 90 hours of work and a certificate in public school music is also given upon the completion of certain special courses. The degree of Mus. B. is conferred.

*The College of Emporia, Emporia.*—One unit of entrance credit allowed, the courses not being specified. A maximum of 24 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, sight-singing and ear-training, methods, applied music. Certificates in piano, voice, and public school music are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Kansas City University, Kansas City.*—One unit of entrance credit in music allowed, the courses not being specified. Credit toward the bachelor's degree is given for work in harmony, counterpoint, and music history, the amount not being specified.

*University of Kansas, Lawrence.*—One unit of entrance credit in music allowed, the courses not being specified. A maximum of 15 hours out of 120 may be counted

toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, instrumentation, appreciation, development of music. Teachers' certificates and artists' certificates are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Bethany College, Lindsborg.*—Two units of entrance credit allowed, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, piano, voice, violin, other instruments, chorus, glee club, orchestra, band. A maximum of 12 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, canon and fugue. A diploma is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*McPherson College, McPherson.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 30 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, applied music.

*Kansas State Agricultural College, Manhattan.*—One unit of entrance credit in music, allowed, courses not being specified. A maximum of 40 hours out of 130 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, ear-training, methods, applied music, harmonics. Certificates in music and in public-school music are awarded upon the completion of certain specified courses.

*Ottawa University, Ottawa.*—One unit of entrance credit in music allowed, courses not being specified. A maximum of 8 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, sight-singing, applied music. A certificate is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*St. Mary's College, St. Marys.*—No entrance credit in music allowed, and no credit toward the degree.

*Kansas Wesleyan University, Salina.*—One unit of entrance credit in music allowed, this to be based upon work in the following subjects: Harmony, sight-singing, counterpoint, history, piano, voice. A maximum of 15 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, ear-training, methods, applied music.

*Washburn College, Topeka.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 20 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, applied music. A diploma is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Friends University, Wichita.*—One unit of entrance credit allowed, courses not being specified. No college credit toward the degree.

*Southwestern College, Winfield.*—One unit of entrance credit in music is allowed, the courses not being specified. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation. A diploma and certificate are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

#### KENTUCKY.

*Berea College, Berea.*—No entrance credit in music is allowed, and no credit toward the degree.

*Ogden College, Bowling Green.*—No entrance credit in music is allowed, and no credit toward the degree.

*Central College, Danville.*—No entrance credit in music is allowed, and no credit toward the degree.

*Georgetown College, Georgetown.*—No entrance credit in music is allowed. A maximum of 18 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. A diploma in piano and a certificate in voice are also awarded upon completion of certain specified courses.

*Hamilton College (Junior College), Lexington.*—No entrance credit allowed in music, and no credit toward the degree.

*Sayre College, Lexington.*—No entrance credit in music is allowed, and no credit toward the degree, but a diploma in piano is awarded upon the completion of certain specified courses in music.

*University of Kentucky, Lexington.*—One unit of entrance credit in music is allowed, the courses not being specified. No college credit given previous to 1918, but courses in music to be introduced in the college year 1918-19.

*University of Louisville, Louisville.*—One unit of entrance credit is allowed, this to be based upon work in harmony, rudiments, counterpoint. A maximum of 24 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, sight-singing, glee club.

*Bethel College, Russellville.*—No entrance credit in music is allowed, and no credit toward the degree.

*St. Mary's College, St. Mary.*—No entrance credit in music is allowed, and no credit may be counted toward the degree.

*Kentucky Wesleyan, Winchester.*—No entrance credit in music is allowed, and no credit may be counted toward the degree.

#### LOUISIANA.

*Louisiana State University, Baton Rouge.*—Three units of entrance credit in music are allowed, these to be based upon work in the following subjects: Harmony, rudiments, counterpoint, appreciation, history, piano. A maximum of 40 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, applied music.

*Newcomb College for Women (Tulane University), New Orleans.*—Two units of entrance credit in music are allowed, these to be based upon work in the following: Harmony, appreciation, piano. A maximum of 70 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, sight-singing, methods, applied music. The degree of Mus. B. is conferred. (Credit in music is allowed in Tulane University only in the case of students in Newcomb College for Women.)

*Louisiana College, Pineville.*—Entrance credit in music is accepted from accredited high schools in Louisiana to any amount that the high school has accepted toward its diploma. A maximum of 6 hours out of 127½ may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history. The degree of Mus. B. is conferred.

#### MAINE.

*Bowdoin College, Brunswick.*—Two units of entrance credit in music are allowed, courses not being specified. A maximum of 6 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation.

*Bates College, Lewiston.*—No entrance credit in music is allowed, and no credit may be counted toward the bachelor's degree.

*University of Maine, Orono.*—Two units of entrance credit in music are allowed, the subjects not being specified except that credit is not given for private lessons under outside teachers. Courses in harmony, counterpoint, appreciation, and conducting are offered and are credited toward the bachelor's degree, the amount of credit not being specified.

*Van Buren College, Van Buren.*—No entrance credit in music is allowed, and no credit may be counted toward the degree.

*Colby College, Waterville.*—No entrance credit in music is allowed, but a maximum of 6 hours may be counted toward the degree, courses not being specified.

#### MARYLAND.

*St. John's College, Annapolis.*—No entrance credit in music allowed, and no credit in music may be counted toward the bachelor's degree.

*Goucher College, Baltimore.*—No entrance credit in music allowed, and no credit in music may be counted toward the bachelor's degree.

*The Johns Hopkins University, Baltimore.*—No entrance credit in music is allowed, and no music courses offered, but credit is given for work done in Peabody Conservatory.

*Morgan College (Colored), Baltimore.*—Entrance credit is allowed for work in harmony, sight-singing, rudiments, chorus, glee club, the amount not being specified clearly. Credit toward the degree is also given for advanced work in music, but no definite plan has been worked out. In one case one-fourth of the entire amount required for graduation was allowed in music.

*Mount St. Joseph's College, Baltimore.*—No entrance credit in music is allowed, and no music courses offered, and no credit in music may be counted toward the bachelor's degree.

*Washington College, Chestertown.*—No entrance credit in music is allowed, and no credit in music may be counted toward the bachelor's degree.

*Maryland State College, College Park.*—No entrance credit in music is allowed, and no credit in music may be counted toward the degree.

*Mount St. Mary's College, Emmitsburg.*—No entrance credit in music ordinarily allowed, but in exceptional cases one unit of instrumental music is accepted. No credit toward the bachelor's degree is allowed.

*Hood College, Frederick.*—No entrance credit in music is allowed, but a maximum of 12 hours out of 120 may be counted toward the bachelor's degree. The courses offered include the following: Harmony, history, form and analysis, sight-singing, ear-training, methods. A diploma is also awarded upon the completion of certain courses in music together with 48 hours of academic work.

*Maryland College for Women, Lutherville.*—No entrance credit in music is allowed, and no credit toward the bachelor's degree; but teachers' certificates in music are awarded upon the completion of certain specified courses. The degree of Mus. B. is also conferred.

*Blue Ridge College, New Windsor.*—No entrance credit in music is allowed, and no credit in music may be counted toward the bachelor's degree, but a certificate in music is awarded upon the completion of a four-year course.

#### MASSACHUSETTS.

*Amherst College, Amherst.*—One unit of entrance credit in music is allowed, this to be based upon work in harmony. A maximum of 18 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history and appreciation, form and analysis, choral and



orchestral ensemble. Choral and orchestral ensemble is required of all students electing any of the music courses for graduation.

*Massachusetts Agricultural College, Amherst.*—No entrance credit in music is allowed, but two semester hours in music history are required for the bachelor's degree.

*Boston College, Boston.*—No entrance credit in music is allowed, and no credit in music may be counted toward the bachelor's degree.

*Boston University, Boston.*—Two units of entrance credit in music are allowed, these to be based upon work in the following: Harmony and counterpoint. A maximum of 22 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, composition, appreciation, ear-training, methods. A certificate in public school music is also awarded upon the completion of certain specified courses in music.

*Simmons College, Boston.*—No entrance credit in music is allowed, and no credit in music may be counted toward the bachelor's degree.

*Harvard University, Cambridge.*—No entrance credit in music is allowed, though a maximum of 15 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation.

*Massachusetts Institute of Technology, Cambridge.*—No entrance credit in music is allowed, and no credit in music may be counted toward the bachelor's degree.

*Radcliffe College, Cambridge.*—No entrance credit in music is allowed, but a maximum of 6½ courses out of 17½ courses required for graduation may be counted toward the bachelor's degree. The courses offered in music include the following: Harmony, counterpoint, composition, history, appreciation, instrumentation. Music has the same recognition that other subjects have.

*Smith College, Northampton.*—One unit of entrance credit in music is allowed, this to be based upon work in the following subjects: Harmony, rudiments, piano, voice, violin. If practical music is offered it must be combined with theory. Certain courses in music are also given credit toward the bachelor's degree.

*Wheaton College, Norton.*—No entrance credit in music is allowed, but a maximum of 16 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, applied music.

*Mount Holyoke College, South Hadley.*—No entrance credit allowed in music after September, 1918, but a maximum of 29 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition and form, history, appreciation, methods, applied music.

*Tufts College, Tufts College.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, counterpoint, appreciation, piano, voice, violin, other instruments. A maximum of 30 hours out of 128 may be counted toward the bachelor's degree.

*Wellesley College, Wellesley.*—One unit of entrance credit allowed in music, this to be based upon work in harmony. A maximum of 30 out of 118 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training. A certificate is awarded upon the completion of a four-year course in music.

*Williams College, Williamstown.*—No entrance credit allowed in music, and no credit may be counted toward the bachelor's degree.

*Clark University, Worcester.*—No entrance credit allowed in music, and no credit may be counted toward the bachelor's degree.

*Clark College, Worcester.*—In general no entrance credit allowed in music, but the college accepts any subjects counted by standard high schools toward graduation; no credit toward the bachelor's degree.

*Holy Cross College, Worcester.*—No entrance credit in music is allowed, and no credit toward the bachelor's degree.

*Worcester Polytechnic Institute, Worcester.*—No entrance credit allowed in music, and no credit toward the bachelor's degree.

#### MICHIGAN.

*Adrian College, Adrian.*—Two units of entrance credit allowed in music, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, chorus, glee club, orchestra, band. Courses in harmony, counterpoint, and history are credited toward the bachelor's degree. The maximum number of hours is not indicated. Certificates in piano and public-school music are also awarded. The degree of Mus. B. is also conferred.

*University of Michigan, Ann Arbor.*—Music credits are accepted from accredited high schools, neither the amount nor the kind of work being specified. Courses in harmony, counterpoint, composition, history, form and analysis, appreciation, applied music are accepted toward the bachelor's degree, the amount not being definitely indicated. Music courses may be counted toward the degrees of A. M. and Ph. D.

*University of Detroit, Detroit.*—No entrance credit allowed in music, and no credit toward the bachelor's degree.

*Michigan Agricultural College, East Lansing.*—No entrance credit in music, but a maximum of 14 hours out of 120 may be counted toward the bachelor's degree, courses not being specified.

*Hillsdale College, Hillsdale.*—No entrance credit in music except by special action of the registrar or faculty. A maximum of 16 out of 124 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, sight-singing, methods, applied music. Diplomas and certificates in piano, voice, violin and public school music are also awarded upon the completion of certain specified courses.

*Hope College, Holland.*—No entrance credit in music, but a maximum of 10 out of 120 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history.

*Michigan College of Mines, Houghton.*—No entrance credit in music allowed, and no credit toward the bachelor's degree.

*Kalamazoo College, Kalamazoo.*—Two units of entrance credit allowed, courses not being specified. A maximum of 12 hours out of 122 may be counted toward the bachelor's degree for work in harmony and history of music. No music courses are offered, but credit is given for work in other schools.

*Olivet School of Music, Olivet.*—Two units of entrance credit in music, these to be based upon work in the following subjects: Harmony, rudiments, history, piano, voice, violin, other instruments. A maximum of 27 hours out of 126 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis. Diplomas in music and certificates in public-school music are also awarded upon the completion of certain specified courses. The degree of Mus. B. is also conferred.

#### MINNESOTA.

*St. John's University, Collegeville.*—No entrance credit in music allowed, and no credit toward the degree.

*Augsburg Seminary, Minneapolis.*—No entrance credit in music allowed, and no credit toward the degree.

*Carleton College, Northfield.*—Six units of entrance credit in music, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, chorus, glee club, orchestra, band. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, the courses offered

including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, methods. The degree of Mus. B. is conferred.

*St. Olaf College, Northfield.*—One unit of entrance credit in music allowed for work in rudiments of music. A maximum of 20 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, applied music. Teachers' certificates and certificates in public-school music are also awarded upon the completion of certain specific courses in music.

*Hamline University, St. Paul.*—Two units of entrance credit allowed, preferably in theory. A maximum of 12 out of 120 hours may be counted toward graduation, courses including harmony and history.

*Macalester College, St. Paul.*—Two units of entrance credit allowed, courses not being specified. A maximum of 32 hours out of 126 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, methods, applied music. The total credit in applied music is not in any case to exceed that earned in theoretical music. Diplomas and teachers' certificates are also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*Gustavus Adolphus College, St. Peter.*—One unit of entrance credit in music, this to be based upon work in the following subjects: Harmony, sight-singing, counterpoint, history. A maximum of 5 out of 130 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, ear-training.

#### MISSISSIPPI.

*Blue Mountain College, Blue Mountain.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 32 out of 128 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, applied music. Certificates in piano, voice, and violin are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Mississippi College, Clinton.*—No entrance credit allowed in music. A maximum of 8 hours granted for playing in the college band, the understanding being that 2 hours of credit are to be given for each year the student belongs to the band.

*Grenada College, Grenada.*—No entrance credit in music, and no credit toward bachelor's degree, but courses are soon to be introduced.

*Rust College (Colored), Holly Springs.*—No entrance credit in music, and no credit toward the bachelor's degree.

*Meridian College, Meridian.*—No entrance credit in music, but a maximum of 6 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, applied music. The degree of Mus. B. is conferred.

*University of Mississippi, University.*—No entrance credit in music is allowed, and no credit may be counted toward the bachelor's degree.

#### MISSOURI.

*Christian (Junior) College, Columbia.*—One unit of entrance credit allowed in music, this to be based upon work in the following: Piano, voice, violin, chorus, glee club. A maximum of 10 hours out of 60 required for the junior college diploma may be counted in music, the courses offered including the following: Harmony, counterpoint, history, appreciation, methods. Certificates and diplomas are also awarded. The degree of Mus. B. is conferred.

*Stephens (Junior) College, Columbia.*—One unit of entrance credit in music allowed, courses not being specified. A maximum of 15 hours out of 60 required for the junior

college diploma may be counted in music, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, methods. A Fine Arts diploma is also awarded.

*University of Missouri, Columbia.*—One unit of entrance credit in music allowed, this to be based upon work in harmony and sight-singing. A maximum of 28 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, appreciation, methods, chorus, orchestra.

*Synodical College for Girls (Junior College), Fulton.*—One unit of entrance credit allowed in music, this to be based upon work in sight-singing and rudiments. A maximum of 17 hours out of the 60 required for the junior college diploma may be counted in music. The courses offered include the following: Harmony, counterpoint, history. A diploma in piano is also awarded. The degree of Mus. B. is also conferred.

*Westminster College, Fulton.*—One unit of entrance credit allowed in music, courses not being specified. No credit may be counted in music toward the bachelor's degree.

*William Woods (Junior) College, Fulton.*—One unit of entrance credit allowed in music for work in rudiments of music. A maximum of 5 hours out of the total number required for the junior college diploma may be counted in music, the courses offered including the following: History, form and analysis, appreciation. Diplomas and certificates of proficiency are also awarded upon completion of certain specified courses.

*William Jewell College, Liberty.*—No entrance credit allowed in music, and no credit toward the bachelor's degree.

*Missouri Valley College, Marshall.*—One unit of entrance credit allowed in music, this to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, chorus. A maximum of 18 out of 128 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, ear-training, methods, orchestra. The degree of Mus. B. is also conferred.

*Park College, Parkville.*—No entrance credit allowed in music, and no credit toward the bachelor's degree.

*Lindenwood College for Women (Junior College), St. Charles.*—Four units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, counterpoint, appreciation, chorus, glee club, orchestra, band. A maximum of 8 out of the 60 hours required for the junior college diploma may be counted in music, the courses offered including the following: Harmony, counterpoint, history, appreciation, sight-singing, ear-training, methods. A diploma is also awarded upon completion of certain specified courses in music. The degrees of Mus. B. and M. M. are also conferred.

*St. Louis University, St. Louis.*—Two units of entrance credit are allowed in music, courses not being specified. No credit may be counted toward the bachelor's degree.

*Tarkio College, Tarkio.*—No entrance credit allowed in music, but a maximum of 16 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis.

*Central Wesleyan College, Warrenton.*—One unit of entrance credit allowed in music, this to be based upon work in history and harmony. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, history, applied music. A diploma is also awarded.

#### MONTANA.

*Montana State College of Agriculture and Mechanical Engineering, Bozeman.*—Entrance credit in music is given for any amount of work that may be allowed toward

the high-school diploma by an accredited school. A maximum of 3 hours out of 108 may be counted toward the bachelor's degree, the work to be in applied music. A certificate also awarded upon completion of certain specified courses.

*Montana State School of Mines, Butte.*—No entrance credit in music is allowed, and no credit toward the degree.

*State University of Montana, Missoula.*—Entrance credit allowed in music in any amount that may be allowed toward the high-school diploma by an accredited school. A maximum of 27 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing, ear-training, methods, applied music. A certificate in public-school music is also awarded upon completion of certain specified courses. The degree of Mus. B. is also conferred.

#### NEBRASKA.

*Union College, College View.*—No entrance credit in music. A maximum of 8 hours out of 64 may be counted toward graduation. A diploma in music is also awarded.

*Doane College, Crete.*—Four units of entrance credit allowed in music, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, other instruments. A maximum of 26 hours out of 125 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, ear-training, methods, applied music. Certificates and diplomas are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*University of Nebraska, Lincoln.*—Six units of entrance credit allowed in music, any kind of work being accepted. A maximum of 28 hours may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, methods, applied music. Certificate in public-school music is also awarded upon completion of certain specified courses. The degree of bachelor of fine arts is also awarded.

*Creighton University, Omaha.*—One-half unit of entrance credit allowed in music, this to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, piano, voice, violin, other instruments, band. A maximum of 8 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music.

*University of Omaha, Omaha.*—One-half unit of entrance credit allowed in music, courses not being specified. A maximum of 10 hours out of 128 may be counted toward the bachelor's degree for courses in music.

*Nebraska Wesleyan University, University Place.*—Four units of entrance credit allowed in music, courses not being specified. A maximum of 10 hours out of 125 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, ear-training. A diploma is also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

#### NEVADA.

*University of Nevada, Reno.*—Three units of entrance credit allowed in music, these to be based upon work in the following subjects: Harmony, sight-singing, rudiments, form, glee club, orchestra. A maximum of 22 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, composition, form and analysis, appreciation, sight-singing, ear-training, chorus.

## NEW HAMPSHIRE.

*New Hampshire College, Durham.*—Credit for work in theory is accepted as a part of the entrance requirements, the amount not being specified. No courses in music are offered but credit is given to students who have taken music courses in other colleges.

*Dartmouth College, Hanover.*—No entrance credit in music, but a maximum of 24 hours out of 122 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation.

## NEW JERSEY.

*College of St. Elizabeth, Convent Station.*—One unit of entrance credit allowed in music, this to be based upon work in harmony and appreciation. A maximum of 45 hours out of 126 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, appreciation. Teachers' certificates and diplomas in public-school music are also awarded. The degree of Mus. B. is also conferred.

*Stevens Institute of Technology.*—No entrance credit allowed in music, and no credit toward the degree.

*St. Peter's College, Jersey City.*—No entrance credit allowed in music, and no credit toward the degree.

*Rutgers College, New Brunswick.*—No entrance credit allowed in music, and no credit toward the degree.

*Princeton University, Princeton.*—No entrance credit allowed in music and no credit toward the degree.

## NEW MEXICO.

*New Mexico School of Mines, Socorro.*—No entrance credit allowed in music, and no credit toward the degree.

## NEW YORK.

*New York State College for Teachers, Albany.*—No entrance credit allowed in music, and no credit toward the degree.

*Alfred University, Alfred.*—Two units of entrance credit allowed, these to be based upon work in history of music and voice. A maximum of 14 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, form and analysis, chorus, sight-singing, methods, applied music. Diplomas in voice, piano, and organ, as well as certificates in public school music, are also awarded upon completion of certain specified courses in music.

*St. Stephen's College, Annandale.*—No entrance credit allowed in music, but two hours may be counted toward the bachelor's degree for work in music history.

*Wells College, Aurora.*—No entrance credit allowed in music, but a maximum of 42 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, ear-training. The degree of Mus. B. is also conferred.

*Adelphi College, Brooklyn.*—No entrance credit allowed in music, and no credit toward the degree.

*College of St. Francis Xavier, Brooklyn.*—No entrance credit allowed in music, and no credit toward the degree.

*Polytechnic Institute, Brooklyn.*—No entrance credit allowed in music, and no credit toward the degree.

*St. John's College, Brooklyn.*—No entrance credit allowed in music, and no credit toward the degree.

*Canisius College, Buffalo.*—No entrance credit allowed in music, and no credit toward the degree.

*University of Buffalo, Buffalo.*—One unit of entrance credit allowed in music, this to be based upon work in harmony, and appreciation of music. No credit may be counted toward the degree.

*St. Lawrence University, Canton.*—Two units of entrance credit allowed for work in harmony and history of music. No credit may be counted toward the degree.

*Hamilton College, Clinton.*—No entrance credit allowed in music, and no credit toward the degree.

*Elmira College, Elmira.*—One unit of entrance credit allowed in music, this to be based upon work in the following: Harmony, piano, voice, violin. A maximum of 22 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, sight-singing, methods, applied music, ear-training. A certificate is also awarded upon completion of certain specified courses in music.

*Hobart College, Geneva.*—No entrance credit allowed in music, and no credit toward the degree.

*Colgate University, Hamilton.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form. Credit is given toward the bachelor's degree for courses in harmony, appreciation, ear-training, and applied music, the maximum number of such credits not being stated.

*Cornell University, Ithaca.*—One unit of entrance credit allowed in music under certain special conditions, this to be based on work in the following: Harmony, rudiments, appreciation, history. Credit in music may be counted toward the bachelor's degree without limit except that in the college of agriculture; no student may take more than 20 hours outside his own college. Courses offered include the following: Harmony, counterpoint, composition, history, appreciation, ear-training, applied music.

*College of New Rochelle, New Rochelle.*—Two units of entrance credit allowed in music, courses not being specified. Candidates for the degree of Mus. B. may offer a total of 4 units in music. College credit is also given for certain courses in music, the amount not being specified. The courses offered include the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, ear-training, methods, applied music.

*Barnard College, New York City.*—One unit of entrance credit allowed in music for work in harmony and appreciation. Credit toward the bachelor's degree is given for courses in harmony, counterpoint, composition, history, form and analysis, there being no limit to the number of credit hours that may be counted in music.

*The College of the City of New York.*—No entrance credit in music but a maximum of 7 hours may be counted toward the bachelor's degree, courses offered including harmony, history, appreciation, methods.

*Columbia University, New York City.*—One unit of entrance credit allowed in music, this to be based upon work in harmony and appreciation. A maximum of 30 hours out of 124 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, composition, history.

*Fordham University, New York City.*—No entrance credit allowed in music, and no credit toward the degree.

*Hunter College of the City of New York, New York City.*—One unit of entrance credit allowed in music for work in harmony. A maximum of 24 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music.

*Manhattan College, New York City.*—No entrance credit allowed in music, and no credit toward the degree.

*New York University, New York City.*—No entrance credit allowed in music, but college credit is given for certain courses, the amount not being specified.

*Teachers College, New York City.*—Two units of entrance credit allowed in music, for work in harmony. From one-third to one-half of the entire number of hours required for graduation may be elected in music. (B. S. degree is conferred.)

*Clarkson College of Technology, Potsdam.*—No entrance credit allowed in music, and no credit toward the degree.

*Vassar College, Poughkeepsie.*—No entrance credit in music at the present, but such credit will probably be given for work in harmony some time in the near future. A maximum of 40 hours out of 116 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, choir, applied music.

*University of Rochester, Rochester.*—One unit of entrance credit allowed, courses not being specified. The music department of the college is just being organized and credit will be given for courses in harmony and history, the amount not yet determined.

*St. Bonaventure's College, St. Bonaventure.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, other instruments, orchestra, band. Credit may be counted toward the bachelor's degree for courses in harmony, counterpoint, composition, history, form and analysis, sight-singing, ear-training, the maximum amount not being stated.

*Union University, Schenectady.*—No entrance credit allowed in music, and no credit toward the degree.

*Syracuse University, Syracuse.*—Two units of entrance credit allowed in music, these to be based upon the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, chorus. A maximum of 6 hours out of 124 may be counted toward the bachelor's degree, the courses offered including harmony and history. Degrees and certificates are also awarded upon completion of certain specified courses in music.

*Russell Sage College, Troy.*—No entrance credit in music and no courses in music at present offered, but such work is contemplated and it is expected that eventually a sufficient number of courses will be offered and credited so that students may major in music.

*United States Military Academy, West Point.*—No entrance credit in music, and no credit toward the bachelor's degree.

#### NORTH CAROLINA.

*Belmont Abbey College, Belmont.*—No entrance credit in music, and no credit toward the degree.

*Davidson College, Davidson.*—No entrance credit in music, and no credit toward the degree.

*Guilford College, Guilford College.*—No entrance credit in music, but a maximum of 8 hours out of 126 may be counted toward the bachelor's degree, courses not being specified. A certificate in music is also awarded upon completion of certain specified courses.

*Lenoir College, Hickory.*—Entrance credit is allowed for courses in music, the amount of credit that will be accepted not being stated. The following subjects are recognized: Harmony, sight-singing, rudiments, history, piano, voice, chorus. No credit is given for the bachelor's degree.

*Meredith College, Raleigh.*—No entrance credit allowed in music, but a maximum of 12 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing. Diplomas in piano, violin, organ, and voice are also awarded.



*St. Mary's School (Junior College), Raleigh.*—No entrance credit in music. A maximum of 12 hours out of 60 required for the junior college diploma may be counted toward the diploma, courses not being specified. Certificates and diplomas are also awarded.

*Shaw University (Colored), Raleigh.*—No entrance credit in music, and no college courses offered, but it is planned to give credits in the near future.

*Wake Forest College, Wake Forest.*—No entrance credit in music, and no credit toward the degree.

*North Carolina State College of Agriculture and Engineering, West Raleigh.*—No entrance credit allowed in music, and no credit toward the degree.

*Atlantic Christian College, Wilson.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 6 hours out of 128 may be counted toward the bachelor's degree, courses not being indicated.

#### NORTH DAKOTA.

*University of North Dakota, University.*—Three units of entrance credit allowed in music, these to be based upon the following: Harmony, sight-singing, rudiments, appreciation, history, piano, voice, violin, glee club, orchestra, band. Only one of these units may be in applied music. Credit is also given toward the bachelor's degree, and there is no limit to the amount of such credit that may be earned. Certificate of public school music is also awarded.

#### OHIO.

*Ohio Northern University, Ada.*—One and one-half units of entrance credit allowed in music, these to be based upon work in the following: Rudiments, chorus, glee club, orchestra, band. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, theory, applied music. Diplomas in voice, etc., are also awarded.

*Municipal University of Akron, Akron.*—No entrance credit allowed in music, and no credit toward the degree.

*Mount Union College, Alliance.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 10 hours out of the total required for the degree may be counted toward the bachelor's degree, courses offered including the following: Harmony, history, theory.

*Ohio University, Athens.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree, courses not being specified. The degree of Mus. B. is conferred.

*Baldwin-Wallace College, Berea.*—No entrance credit in music allowed, but the matter is under consideration and one unit will probably be given for class work in the future. A maximum of 30 hours may be counted toward the bachelor's degree, the courses not being specified.

*Bluffton College, Bluffton.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 24 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, history, form and analysis, church music, appreciation, sight-singing, ear-training, methods.

*Cedarville College, Cedarville.*—No entrance credit in music allowed, but a maximum of 8 hours out of 120 may be counted, courses including harmony and applied music.

*St. Xavier College, Cincinnati.*—No entrance credit allowed in music, and no credit toward the bachelor's degree.

*University of Cincinnati, Cincinnati.*—Three units of entrance credit allowed in music, courses not being specified. No credit may be counted toward the degree except by special action of the faculty.

*Case School of Applied Science, Cleveland.*—No entrance credit allowed in music, and no credit toward the degree.

*St. Ignatius College, Cleveland.*—No entrance credit allowed in music, and no credit toward the degree.

*Western Reserve University, Cleveland.*—No entrance credit in music allowed, but a maximum of 24 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, history, appreciation, applied music. Students may major in music.

*Capital University, Columbus.*—No entrance credit in music, but a maximum of 12 hours out of total may be counted toward the bachelor's degree, courses not being specified.

*Defiance College, Defiance.*—No entrance credit allowed in music, and no credit may be counted toward the degree, but diplomas and certificates are awarded upon completion of certain specified courses in music.

*Ohio Wesleyan University, Delaware.*—No entrance credit in music allowed, but a maximum of 18 hours out of the total may be counted toward the bachelor's degree, courses offered including theory, history, and applied music.

*Kenyon College, Gambier.*—No entrance credit in music, and no credit toward the degree.

*Denison University, Granville.*—Music not on the list of subjects accepted for entrance credit, but might be taken when coming from a school of recognized standard. Credit toward the bachelor's degree given for the following courses: Harmony, counterpoint, composition, history, form and analysis, physical basis of music, appreciation, no maximum limit having been set.

*Hiram College, Hiram.*—Four units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, history, piano, voice, violin, other instruments. A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, history, methods.

*Marietta College, Marietta.*—No entrance credit in music allowed, and no credit toward the bachelor's degree.

*Franklin College, New Athens.*—Entrance credit is allowed in music, the amount not being stated. No credit toward the bachelor's degree.

*Oberlin College, Oberlin.*—Two units accepted from accredited schools for work in theory, appreciation, or applied music. A maximum of 36 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, methods, applied music. Teachers' certificates and certificates in public-school music are also awarded. The degree of Mus. B. is also conferred.

*Miami University, Oxford.*—Four units of entrance credit allowed in music, courses not being specified. A maximum of 21 hours out of 124 may be counted toward the bachelor's degree, courses offered including the following: Harmony, history, form and analysis, chorus. A diploma in public-school music is also awarded upon completion of certain specified courses in music.

*Oxford College for Women, Oxford.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 7½ hours out of 124 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, ear-training, applied music. Teachers' certificates also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*The Western College for Women, Oxford.*—No entrance credit allowed in music, but a maximum of 30 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, ear-training, applied music. A certificate is also awarded upon completion of certain specified courses in music.

*Lake Erie College, Painesville.*—One unit of entrance credit allowed, this to be based upon work in the following subjects: Harmony, rudiments, piano, voice, violin. A maximum of 41 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, methods, applied music. The degree of Mus. B. is conferred.

*Wittenberg College, Springfield.*—No entrance credit allowed in music, and no credit toward the bachelor's degree at present, but such credit is to be offered in the near future.

*Heidelberg University, Tiffin.*—One unit of entrance credit allowed in music, this to be based upon work in voice and chorus. A maximum of 16 hours out of 124 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, composition, history, form and analysis; ear-training, methods, applied music. Diplomas and certificates are also awarded upon completion of certain specified courses in music.

*St. John's University, Toledo.*—No entrance credit in music and no credit toward the bachelor's degree.

*Otterbein College, Westerville.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 16 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, applied music.

*The College of Wooster, Wooster.*—No entrance credit allowed in music, but a maximum of 18 hours out of the total required for degree may be counted in music, 10 hours of this total consisting of class work and 8 hours of applied music.

#### OKLAHOMA.

*Oklahoma College for Women, Chickasha.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, counterpoint, appreciation, history, form, piano, voice, violin, glee club. A maximum of 14 hours out of 124 may be counted toward the bachelor's degree, courses not being specified. Diplomas are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*University of Oklahoma, Norman.*—One unit of entrance credit allowed in music, courses not being specified. (Three units are accepted for admission to the school of fine arts.) A maximum of 30 hours out of 120 may be counted toward the bachelor's degree, courses offered including the following: Harmony, counterpoint, history, form and analysis, aesthetics, canon, appreciation, ear-training, methods, fugue, instrumentation. Teachers' certificates are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*Henry Kendall College, Tulsa.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, counterpoint, piano, voice, violin. A maximum of 21 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. Certificates in piano, public school music, etc., are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

#### OREGON.

*Albany College, Albany.*—One unit of entrance credit allowed for music, this to be based upon work in piano. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, form and analysis, appreciation, methods, applied music.

*University of Oregon, Eugene.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 40 hours out of 120 may be counted

toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, methods, applied music. The degree of Mus. B. is conferred.

*Pacific University, Forest Grove.*—Two units of entrance credit allowed in music, courses not being specified. A maximum of 6 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, theory, applied music. Certificates and diplomas are also awarded upon completion of certain specified courses in music.

*McMinnville College, McMinnville.*—One unit of entrance credit allowed in music, this to be based upon work in the following: Harmony, sight-singing, appreciation, history, piano, voice. No college credit given except to those working for the degree of Mus. B. Diplomas and certificates are awarded upon completion of certain specified courses in music.

*Pacific College, Newberg.*—No entrance credit in music. A maximum of 15 hours out of 135 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. Diplomas and certificates are also awarded upon completion of certain specified courses in music.

*Reed College, Portland.*—No entrance credit in music, and no credit toward the degree.

*Willamette University, Salem.*—No entrance credit in music, but a maximum of 14 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, chorus, appreciation, methods.

*Columbia (Junior) College, Milton.*—Three units of entrance credit allowed, these to be based upon work in the following: Harmony, sight-singing, rudiments, history, piano, voice, violin. No college credit given.

#### PENNSYLVANIA.

*Allentown College for Women, Allentown.*—Entrance credit allowed for work in harmony, piano, voice, the amount not being stated. A maximum of 32 hours out of 124 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, sight-singing, ear-training, methods, applied music. Certificates in piano and voice are also awarded upon completion of certain specified courses.

*Lebanon Valley College, Annville.*—No entrance credit in music. Credit toward the bachelor's degree is given for work in harmony, counterpoint, and music history, amount not being specified.

*Beaver College, Beaver.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, other instruments. A maximum of 16 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. Diplomas and certificates are also awarded upon completion of certain specified courses in music.

*Moravian Seminary and College for Women, Bethlehem.*—Entrance credit allowed in music, but the amount is not specified. Courses in music are counted toward the degree but neither the courses nor the amount of credit specified. A diploma is also awarded.

*Bryn Mawr College, Bryn Mawr.*—No entrance credit allowed in music and no credit may be counted toward the degree.

*Dickinson College, Carlisle.*—No entrance credit allowed in music and no credit may be counted toward the degree.

*Wilson College, Chambersburg.*—Entrance credit allowed in music for work in the following courses: Harmony, sight-singing, rudiments, counterpoint, piano, voice, violin, other instruments, chorus, glee club, orchestra, band, the amount accepted not being stated. A maximum of 16 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, sight-singing, ear-training, methods, applied music. Certificate is also awarded upon completion of certain specified courses in music.

*Ursinus College, Collegeville.*—No entrance credit allowed in music, but a maximum of 18 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, ear-training.

*Lafayette College, Easton.*—No entrance credit allowed in music and no credit toward the degree.

*Pennsylvania College, Gettysburg.*—No entrance credit allowed in music and no credit toward the degree.

*Grove City College, Grove City.*—Two units of entrance credit allowed in music, courses not being specified. No college credit given at present, but music courses are soon to be introduced, and the work credited toward the bachelor's degree. The degree of Mus. B. is also to be offered in the near future. Diploma is awarded on the completion of certain specified courses in music.

*Haverford College, Haverford.*—No entrance credit in music and no credit counted toward the degree.

*Franklin and Marshall College, Lancaster.*—No entrance credit allowed in music and no credit counted toward the degree.

*Lincoln University (Colored), Lincoln University.*—No entrance credit allowed in music and no credit counted toward the degree.

*Allegheny College, Meadville.*—No entrance credit allowed in music and no credit counted toward the degree.

*Albright College, Myerstown.*—No entrance credit allowed in music and credit given toward the degree only by special vote of the faculty. A diploma is awarded on the completion of certain specified courses in music.

*Westminster College, New Wilmington.*—Three units of entrance credit allowed in music, courses not being specified. A maximum of 14 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis. A certificate in public school music is also awarded. The degree of Mus. B. is also conferred.

*Drexel Institute, Philadelphia.*—One unit of entrance credit allowed for work in rudiments of music. No credit toward the degree.

*La Salle College, Philadelphia.*—No entrance credit in music allowed and no credit toward the degree.

*St. Joseph's College, Philadelphia.*—No entrance credit allowed in music and no credit toward the degree.

*The Temple University, Philadelphia.*—No entrance credit allowed in music, but credit in music courses allowed toward the degree of B. S., neither the courses nor the amount of credit being specified.

*University of Pennsylvania, Philadelphia.*—No entrance credit allowed in music, but a maximum of 10 hours of work in music may be counted toward the bachelor's degree.

*Carnegie Institute of Technology, Pittsburgh.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 106 hours out of 144 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing, methods, applied music. The degree of B. A. in music is conferred.

*Pennsylvania College for Women, Pittsburgh.*—One unit of entrance credit allowed in music, for work in harmony. A maximum of 38 hours out of 120 may be counted

toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, applied music. A certificate is also awarded upon completion of certain specified courses in music.

*University of Pittsburgh, Pittsburgh.*—Four units of entrance credit allowed, these to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, history, form, piano, voice, violin, other instruments, chorus, glee club, orchestra, band. A maximum of 40 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music.

*Susquehanna University, Selinsgrove.*—No entrance credit allowed in music and no credit toward the bachelor's degree, but the degree of Mus. B. is conferred.

*Lehigh University, South Bethlehem.*—No entrance credit allowed in music and no credit toward the degree.

*Pennsylvania State College, State College.*—No entrance credit allowed in music at present, but it is hoped to accept such work in the near future. A maximum of 8 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, form and analysis, sight-singing, ear-training, applied music.

*Swarthmore College, Swarthmore.*—No entrance credit allowed in music, and no credit toward the degree.

*Villanova College, Villanova.*—No entrance credit allowed in music, and no credit toward the degree.

#### PORTO RICO.

*University of Porto Rico, San Juan.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, appreciation, history, form, voice. A maximum of 15 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, appreciation, sight-singing, methods, applied music.

#### RHODE ISLAND.

*Brown University, Providence.*—No entrance credit allowed in music, but a maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including harmony, history, appreciation.

#### SOUTH CAROLINA.

*College of Charleston, Charleston.*—No entrance credit allowed in music, and no credit toward the degree.

*Clemson Agricultural College, Clemson College.*—No entrance credit allowed in music, and no credit toward the degree.

*Presbyterian College of South Carolina, Clinton.*—No entrance credit allowed in music, and no credit toward the degree.

*Columbia College, College Place.*—No entrance credit allowed in music, but a maximum of 6 hours may be counted toward the bachelor's degree, courses not being specified.

*Benedict College (Colored), Columbia.*—No entrance credit allowed in music, and no credit toward the degree.

*University of South Carolina, Columbia.*—No entrance credit allowed in music, and no credit toward the degree.

*Furman University, Greenville.*—No entrance credit allowed in music, and no credit toward the degree.

*Lander College, Greenwood.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 6 hours out of 60 required for graduation may be counted toward the junior college diploma, courses not being specified. A certificate is also awarded upon completion of certain specified courses in music.

*Coker College, Hartsville.*—No entrance credit allowed in music, but a maximum of 5 hours may be counted toward the bachelor's degree, courses not being specified. The degree of Mus. B. is conferred.

*Newberry College, Newberry.*—No entrance credit allowed in music, and no credit toward the degree.

*Converse College, Spartanburg.*—Two and one-half units of entrance credit allowed in the school of music for work in harmony and piano, but none in the Liberal Arts College. A maximum of 12 semester hours may be counted toward the bachelor's degree, these to be in harmony and applied music. Certificates in public school music and in applied music are also awarded. The degree of Mus. B. is also conferred.

## SOUTH DAKOTA.

*South Dakota State College of Agriculture and Mechanical Arts, Brookings.*—No entrance credit allowed in music, but courses in music may be counted toward the bachelor's degree, these including the following: Harmony, counterpoint, composition, history, form and analysis, applied music. The maximum amount of such credit is not specified.

*Huron College, Huron.*—No entrance credit allowed in music, but a maximum of 8 hours out of 128 may be counted toward the bachelor's degree, the courses offered including harmony, history, theory. Diplomas and certificates are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Dakota Wesleyan University, Mitchell.*—No entrance credit allowed in music, but a maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation. A normal certificate is also awarded upon completion of certain specified courses.

*University of South Dakota, Vermilion.*—No entrance credit allowed in music. A maximum of 24 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, chorus, applied music, orchestra. A teacher's certificate is also awarded upon the completion of certain specified courses in music. The degree of Mus. B. is conferred.

*Yankton College, Yankton.*—No entrance credit in music, but a maximum of 20 hours may be counted toward the bachelor's degree, the courses not being specified.

## TENNESSEE.

*King College, Bristol.*—No entrance credit allowed in music, and no credit toward the degree.

*Tusculum College, Greenville.*—One unit of entrance credit allowed in music, this to be based upon work in theory, unless the student has had two lessons a week in practical music for at least two years. A maximum of 12 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing. A certificate is also awarded upon completion of certain specified courses in music.

*Union University, Jackson.*—No entrance credit allowed in music, but a maximum of 4 hours may be counted toward the bachelor's degree, courses not being specified. A teacher's certificate is also awarded upon completion of certain specified courses in music. The degrees of Mus. B. and M. M. are conferred.

*Carson-Newman College, Jefferson City.*—One unit of entrance credit allowed in music, courses not being specified. A certain amount of credit also given toward the bachelor's degree, neither the amount nor the courses being stated. A certificate is also awarded upon completion of certain specified courses in music.

*Knoxville College (Colored), Knoxville.*—No entrance credit allowed in music, and no credit toward the degree.

*University of Tennessee, Knoxville.*—Music is accepted as an entrance subject, the amount not being stated. No credit toward the bachelor's degree.

*Maryville College, Maryville.*—No entrance credit allowed in music, and no credit toward the bachelor's degree; but a diploma is awarded upon completion of certain specified courses in music.

*Tennessee College, Murfreesboro.*—One unit of entrance credit allowed in music, this to be based upon work in the following: Harmony, history, piano, voice. A maximum of 16 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, applied music. Certificates and diplomas are also awarded upon completion of certain specified courses in music.

*Fisk University (Colored), Nashville.*—Entrance credit allowed for work in music, the amount not being stated. Credit toward the bachelor's degree given for courses in harmony, history, and methods, the maximum amount not being stated. A diploma is also awarded upon completion of certain specified courses in music.

*Vanderbilt University, Nashville.*—No entrance credit allowed in music, and no credit toward the degree.

*University of the South, Sevanee.*—No entrance credit allowed in music, and no credit toward the degree.

#### TEXAS.

*Simmons College, Abilene.*—No entrance credit allowed in music, and no credit toward the degree; but a diploma is awarded upon completion of certain specified courses in music.

*University of Texas, Austin.*—No entrance credit allowed in music, but a maximum of 18 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, chorus, appreciation, ensemble.

*Baylor College, Belton.*—One-half unit of entrance credit allowed for work in sight-singing. A maximum of 6½ hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, sight-singing, methods, applied music. A certificate is also awarded upon completion of certain specified courses in music.

*Agricultural and Mechanical College of Texas, College Station.*—No entrance credit allowed in music, and no credit toward the degree.

*College of Industrial Arts, Denton.*—Three and a half units allowed for entrance credit in music, these to be based upon work in the following: Harmony, sight-singing, piano, voice, violin, other instruments, chorus, glee club, orchestra, band. No credit in music toward the degree.

*Texas Woman's College, Fort Worth.*—Two units of entrance credit allowed in music, these to be based upon work in harmony, appreciation. A maximum of 12 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, composition, history, appreciation, methods.

*The Rice Institute, Houston.*—No entrance credit allowed in music, and no credit toward the degree.

*Austin College, Sherman.*—No entrance credit allowed in music, and no credit toward the degree.

*Baylor University, Waco.*—No entrance credit allowed in music, but a maximum of 2 majors out of the 36 majors required for the degree may be counted in music.

#### UTAH.

*Utah Agricultural College, Logan.*—Three or four units allowed in music, courses not being specified. A maximum of 84 hours out of 180 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, appreciation, sight-singing, ear-training, methods, applied music, opera, band, chorus, orchestra.



*University of Utah, Salt Lake City.*—Two units allowed in music for entrance, these to be based upon work in the following: Harmony, history, piano, voice, violin, other instruments, chorus, glee club, orchestra. A maximum of 36 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, "The Masters," appreciation, methods, applied music. Certificates and diplomas are also awarded upon completion of certain specified courses in music.

## VERMONT.

*University of Vermont, Burlington.*—No entrance credit allowed in music, and no credit toward the degree.

*Middlebury College, Middlebury.*—No entrance credit allowed in music, but a maximum of 32 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, form and analysis, sight-singing, applied music.

*Norwich University, Northfield.*—No entrance credit allowed in music, and no credit toward the degree.

*St. Michael's College, Winooski.*—Two units of entrance credit allowed in music, these to be based upon work in the following: Harmony, sight-singing, rudiments, counterpoint, appreciation, history, form, piano, voice, violin, other instruments, chorus, glee club, orchestra, band. A maximum of 6 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, sight-singing, applied music.

## VIRGINIA.

*Randolph-Macon College, Ashland.*—No entrance credit allowed in music, and no credit allowed to count toward the degree.

*Virginia Agricultural and Mechanical College and Polytechnic Institute, Blacksburg.*—Two units of entrance credit allowed in music, courses not being specified. No credit toward the degree.

*Bridgewater College, Bridgewater.*—Two units of entrance credit allowed for work in harmony and music history. A maximum of 4 hours may be counted toward the bachelor's degree. A diploma is also awarded upon completion of certain specified courses in music.

*Virginia Intermont College (Junior College), Bristol.*—No entrance credit allowed in music, and no credit toward the degree.

*Sullins College, Bristol.*—Two units of entrance credit allowed for work in harmony and piano. College credit is also given for courses in harmony and history of music.

*University of Virginia, Charlottesville.*—No entrance credit allowed in music, and no credit toward the degree.

*Hampden-Sidney College, Hampden-Sidney.*—No entrance credit allowed in music, and no credit toward the degree.

*Hollins College, Hollins.*—One-half unit of entrance credit allowed for work in rudiments of music. A maximum of 12 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation. A diploma is also awarded upon completion of certain specified courses in music.

*Washington and Lee University, Lexington.*—No entrance credit allowed in music, and no credit toward the degree.

*Randolph-Macon Woman's College, Lynchburg.*—No entrance credit allowed in music, but a maximum of 4 hours out of 120 may be counted toward the bachelor's degree, this work to be in theory. Certificates of proficiency in piano and voice are also awarded upon completion of certain specified courses.

*Virginia Union University (Colored) (Junior College), Richmond.*—No entrance credit allowed in music, and no credit toward the degree.

*Roanoke College, Salem.*—No entrance credit allowed in music, and no credit toward the degree.

*Elizabeth College, Salem.*—No entrance credit allowed in music, but a maximum of 6 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, applied music. A diploma is also awarded upon completion of certain specified courses.

*Sweet Briar College, Sweet Briar.*—No entrance credit allowed in music, but a maximum of 12 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, applied music.

*College of William and Mary, Williamsburg.*—No entrance credit allowed in music, and no credit toward the degree.

#### WASHINGTON.

*State College of Washington, Pullman.*—Four units of entrance credit allowed in music, three for work in piano and one for courses in theory. Credit toward the bachelor's degree is freely given, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, sight-singing, methods, applied music. Certificate in public-school music is also awarded upon completion of certain specified courses. The degree of B. A. in music is offered.

*University of Washington, Seattle.*—Four units of entrance credit allowed, courses not being specified. A maximum of 24 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, appreciation, ear-training, methods, applied music. A certificate in proficiency is also awarded upon completion of certain specified courses. The degrees of A. B. in music, and Mus. B. are also conferred.

*Whitworth College, Spokane.*—Two units of entrance credit allowed in music for work in piano and voice. A maximum of 8 hours out of 120 may be counted toward the bachelor's degree, the course offered being applied music. Certificates and diplomas are also awarded.

*College of Puget Sound, Tacoma.*—Four units of entrance credit allowed in music, any courses accepted by an accredited high school as part of its graduation requirements being taken. Credit toward the bachelor's degree is given for the following courses: Harmony, counterpoint, composition, history, appreciation, methods, the maximum amount not being specified. A diploma is also awarded upon completion of certain specified courses in music.

*Whitman College, Walla Walla.*—Two units of entrance credit allowed for work in harmony, counterpoint. A maximum of 24 hours out of 128 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, form and analysis, sight-singing, ear-training, methods, applied music. The degree of Mus. B. is conferred.

#### WEST VIRGINIA.

*Bethany College, Bethany.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 8 hours may be counted toward the bachelor's degree, courses and amounts of credit not being stated.

*Davis and Elkins College, Elkins.*—No entrance credit allowed in music, and no credit toward the degree, but a music department is being organized, and such credit is to be given.

*West Virginia University, Morgantown.*—No entrance credit allowed in music, but a maximum of 15 hours out of 128 may be counted toward the bachelor's degree, the courses offered including harmony, counterpoint, history, form and analysis. Certificates and diplomas are also awarded upon completion of certain specified courses in music.

*West Virginia Collegiate Institute.*—No entrance credit allowed in music, and no credit toward the degree.

## WISCONSIN.

*Lawrence College, Appleton.*—No entrance credit allowed in music, but a maximum of 12 hours may be counted toward the bachelor's degree for courses in theory.

*Beloit College, Beloit.*—No entrance credit allowed in music, but a maximum of 14 hours out of 120 may be counted toward the bachelor's degree, the courses offered including the following: Harmony, history, appreciation, sight-singing, applied music.

*University of Wisconsin, Madison.*—One unit of entrance credit allowed in music, courses not being specified. A maximum of 20 hours out of 120 may be counted toward the bachelor's degree, courses not being specified. Diplomas and State teachers' certificates are awarded upon completion of certain specified courses. The degree of Mus. B. is also conferred.

*Concordia College (Junior College), Milwaukee.*—No entrance credit allowed in music, and no credit toward the degree.

*Milwaukee-Downer College, Milwaukee.*—No entrance credit allowed in music regularly, but in special cases work in theory or piano is accepted. A maximum of 22 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, composition, history, appreciation, methods, applied music.

*Mission House, Plymouth.*—No entrance credit allowed in music, and no credit toward the degree.

*Campion College, Prairie du Chien.*—No entrance credit allowed in music, and no credit toward the degree.

*Ripon College, Ripon.*—Entrance credit allowed for work in piano, voice, violin, the amount not being stated. A maximum of 20 hours may be counted toward the bachelor's degree, the courses offered including the following: Harmony, counterpoint, history, form and analysis, appreciation, sight-singing, ear-training, methods, applied music. Diplomas and certificates are also awarded upon completion of certain specified courses in music. The degree of Mus. B. is also conferred.

*St. Clara College, Sinsinawa.*—No entrance credit allowed in music, and no credit toward the degree; but teachers' certificates and diplomas are awarded upon completion of certain specified courses in music. The degree of Mus. B. is conferred.

## PART II.—MUSIC IN HIGH SCHOOLS OF THE UNITED STATES, 1919-20.

The information regarding the status of music in the high schools of the United States, as given in the following tables, was gathered through a questionnaire prepared by a joint committee of the National Education Association, Music Teachers' National Association, and Music Supervisors' National Conference; Osbourne McConathy, chairman, Karl W. Gehrkins, Edward B. Birge; printed in the *Music Supervisors' Journal*, January, 1919.

TABLE 1.—*Music courses offered and credited.*

Courses.	Western States (7); number re- porting, 54.		Central States (17); number re- porting, 207.		Eastern States (12); number re- porting, 98.		Total (36); number re- porting, 359.	
	Courses offered.	Grant- ing credit.	Courses offered.	Grant- ing credit.	Courses offered.	Grant- ing credit.	Courses offered.	Grant- ing credit.
Required chorus.....	21	11	78	35	55	13	154	59
Elective chorus.....	32	19	105	57	43	18	180	94
Assembly singing.....	44	3	175	6	83	5	322	14
Boys' glee club.....	34	34	125	62	47	17	206	113
Girls' glee club.....	43	30	157	82	55	21	255	133
Mixed glee clubs.....	21	7	57	17	39	7	117	31
Orchestra.....	37	29	162	95	79	35	278	159
Band.....	26	19	53	25	9	2	88	46
Harmony.....	32	25	70	54	26	17	128	96
Other theoretical work.....	13	9	28	20	42	25	83	54
Music appreciation.....	34	22	78	48	43	18	155	88
History.....	27	29	58	41	25	13	110	83
Total.....	364	237	1,146	542	546	191	2,076	970

TABLE 2.—*Applied music.*

Applied music.	Western States (7); num- ber re- porting, 54.	Central States (17); number reporting, 207.	Eastern States (12); number reporting, 98.	Total (36); number reporting, 359.
Schools granting credit for piano.....	30	58	30	118
Schools granting credit for violin.....	24	41	28	93
Schools granting credit for other strings.....	16	28	19	63
Schools granting credit for wind instruments.....	20	31	17	68
Schools granting credit for vocal study.....	26	40	26	92
Schools which bear expenses of applied music lessons.....	13	13	6	32
Schools which credit outside study.....	31	58	27	116
Schools which own and lend instruments.....	26	65	34	125
Total.....	186	334	187	707

TABLE 3.—*Chorus singing.*

Number reporting.	States.	Required chorus.		Elective chorus.		Occasional assembly singing.	
		Courses offered.	Granting credit.	Courses offered.	Granting credit.	Courses offered.	Granting credit.
WESTERN STATES.							
27	California.....	10	6	18	12	25	3
7	Washington.....	0	0	4	2	5	0
4	Oregon.....	1	0	2	0	4	0
2	Idaho.....	1	0	1	1	1	0
7	Utah.....	6	5	4	2	5	0
4	Montana.....	2	0	2	2	3	0
3	Arizona.....	1	0	1	0	1	0
54	Total.....	21	11	32	19	44	3
CENTRAL STATES.							
1	Tennessee.....	1	0	0	0	1	0
17	Kansas.....	5	2	10	7	16	0
23	Iowa.....	6	1	12	4	20	0
16	Minnesota.....	8	5	6	4	13	0
18	Ohio.....	4	1	12	5	16	0
1	Nebraska.....	0	0	1	1	0	0
4	North Dakota.....	2	1	1	1	2	0
6	South Dakota.....	1	0	1	0	5	0
2	Mississippi.....	1	0	0	0	2	0
1	Texas.....	0	0	0	0	1	0
3	Kentucky.....	1	1	2	2	3	0
23	Wisconsin.....	11	1	10	3	21	0
18	Michigan.....	7	4	11	7	13	3
28	Indiana.....	14	10	13	10	24	2
33	Illinois.....	13	7	16	8	28	0
10	Missouri.....	2	1	8	3	7	1
3	Oklahoma.....	2	1	2	2	3	0
207	Total.....	78	35	105	57	175	6
EASTERN STATES.							
1	South Carolina.....	1	0	0	0	1	0
1	Georgia.....	0	0	1	0	1	0
2	West Virginia.....	0	0	2	1	2	0
2	Virginia.....	0	0	1	0	2	0
20	Pennsylvania.....	9	2	11	3	18	1
13	New Jersey.....	8	1	6	3	11	1
34	New York.....	23	8	7	1	29	1
3	Rhode Island.....	3	0	1	0	1	0
9	Connecticut.....	5	1	6	5	7	0
2	Vermont.....	0	0	2	2	2	1
7	Maine.....	4	0	4	3	7	0
4	New Hampshire.....	2	1	2	0	2	1
98	Total.....	55	13	43	18	83	5
359	Grand total.....	154	59	180	94	302	14

TABLE 8.—*Credit for applied music.*

Number reporting.	States.	Piano.	Violin.	Other strings.	Wind.	Vocal.
<b>WESTERN STATES.</b>						
27	California.....	19	15	10	12	15
7	Washington.....	3	1	2	2	2
4	Oregon.....	2	2	1	2	2
2	Idaho.....	1	1	1	1	1
7	Utah.....	3	3	1	2	4
4	Montana.....	2	2	1	1	2
3	Arizona.....	0	0	0	0	0
54	Total.....	30	24	16	20	26
<b>CENTRAL STATES.</b>						
1	Tennessee.....	0	0	0	0	0
17	Kansas.....	8	4	3	2	4
23	Iowa.....	5	2	2	2	3
16	Minnesota.....	3	1	1	1	0
18	Ohio.....	4	3	3	3	2
1	Nebraska.....	0	0	0	0	0
4	North Dakota.....	0	0	0	0	1
6	South Dakota.....	3	1	0	0	1
2	Mississippi.....	1	0	0	0	0
1	Texas.....	0	0	0	0	0
3	Kentucky.....	1	1	1	1	1
23	Wisconsin.....	5	4	2	3	4
18	Michigan.....	4	4	2	2	2
28	Indiana.....	7	6	4	5	6
33	Illinois.....	15	13	8	9	12
10	Missouri.....	1	1	2	2	3
3	Oklahoma.....	1	1	0	1	1
207	Total.....	58	41	28	31	40
<b>EASTERN STATES.</b>						
1	South Carolina.....	1	1	1	1	1
1	Georgia.....	0	0	0	0	0
2	West Virginia.....	1	1	1	0	0
2	Virginia.....	0	0	0	0	0
20	Pennsylvania.....	3	3	2	3	4
13	New Jersey.....	0	0	0	0	2
34	New York.....	17	15	8	7	11
3	Rhode Island.....	1	1	0	0	1
9	Connecticut.....	1	1	1	1	2
2	Vermont.....	1	2	2	1	1
7	Maine.....	4	3	3	3	3
4	New Hampshire.....	1	1	1	1	1
98	Total.....	30	28	19	17	26
359	Grand total.....	118	93	63	68	92

TABLE 9.—Additional data regarding applied music.

Number reporting.	States.	Schools bearing expense of applied music.		Schools crediting outside study under private teachers.		Schools owning and lending orchestral and band instruments.	
		Yes.	No.	Yes.	No.	Yes.	No.
WESTERN STATES.							
27	California.....	9	18	17	10	17	10
7	Washington.....	0	7	5	2	3	4
4	Oregon.....	0	4	3	1	0	4
2	Idaho.....	1	1	1	1	1	1
7	Utah.....	3	4	2	5	2	5
4	Montana.....	0	4	2	2	2	2
3	Arizona.....	0	3	1	2	1	2
54	Total.....	13	41	31	23	26	28
CENTRAL STATES.							
1	Tennessee.....	0	1	0	1	0	1
17	Kansas.....	1	16	6	11	2	15
23	Iowa.....	1	22	5	18	6	17
16	Minnesota.....	3	13	4	12	6	10
19	Ohio.....	1	17	5	13	6	12
1	Nebraska.....	0	1	0	1	1	0
4	North Dakota.....	0	4	0	4	1	3
6	South Dakota.....	0	6	3	3	3	3
2	Mississippi.....	0	2	0	2	0	2
1	Texas.....	0	1	0	1	0	1
3	Kentucky.....	0	3	1	2	2	1
23	Wisconsin.....	0	23	5	18	7	16
18	Michigan.....	0	18	4	14	6	12
28	Indiana.....	4	24	9	19	6	22
33	Illinois.....	2	31	14	19	14	19
10	Missouri.....	1	9	1	9	4	6
3	Oklahoma.....	0	3	1	2	1	2
207	Total.....	13	194	58	149	65	142
EASTERN STATES.							
1	South Carolina.....	1	0	0	1	0	1
1	Georgia.....	0	1	0	1	0	1
2	West Virginia.....	0	2	1	1	0	2
2	Virginia.....	0	2	1	1	1	1
20	Pennsylvania.....	1	19	4	16	8	12
13	New Jersey.....	0	13	0	13	8	5
34	New York.....	3	31	13	21	11	23
3	Rhode Island.....	0	3	1	2	0	3
9	Connecticut.....	0	9	1	8	3	6
2	Vermont.....	0	2	2	0	1	1
7	Maine.....	1	6	3	4	2	5
4	New Hampshire.....	0	4	1	3	0	4
98	Total.....	6	92	27	71	34	64
359	Grand total.....	32	327	116	243	125	234

TABLE 10.—*High-school credits allowed for music.*

Number re- porting.	States.	Credits allowed for music on a basis of 16 credits for graduation.														
		$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5	6	7	8	Vague.	No re- port.	No credit.
WESTERN STATES.																
27	California.....	1	0	0	4	1	2	1	8	1	3	0	4	0	0	0
7	Washington.....	0	2	0	2	0	0	0	0	0	0	0	0	2	0	1
4	Oregon.....	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0
2	Idaho.....	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
7	Utah.....	0	1	1	1	1	0	0	0	0	0	0	0	2	1	0
4	Montana.....	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0
3	Arizona.....	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
54	Total.....	1	12	1	8	2	3	1	10	1	3	0	4	4	1	1
CENTRAL STATES.																
1	Tennessee.....	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Kansas.....	0	4	1	7	0	1	0	2	0	0	1	0	0	0	1
23	Iowa.....	5	5	1	1	0	0	0	3	0	0	0	0	1	0	7
16	Minnesota.....	1	6	1	3	0	0	0	3	0	0	0	0	0	2	0
18	Ohio.....	1	4	0	2	0	1	0	5	0	0	0	0	1	3	1
1	Nebraska.....	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4	North Dakota.....	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0
6	South Dakota.....	1	0	1	2	0	0	0	0	0	0	0	0	0	1	1
2	Mississippi.....	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1	Texas.....	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3	Kentucky.....	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
23	Wisconsin.....	4	3	2	3	0	0	0	2	0	0	0	0	3	2	4
18	Michigan.....	0	7	0	4	0	0	0	2	0	0	0	0	2	2	1
28	Indiana.....	4	10	4	4	0	0	0	1	0	0	0	1	2	1	0
33	Illinois.....	1	3	1	9	0	3	1	5	1	0	1	0	4	3	2
10	Missouri.....	0	5	0	3	0	0	0	0	0	0	0	0	0	0	2
3	Oklahoma.....	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
207	Total.....	17	51	11	45	0	7	1	23	1	0	2	1	13	14	21
EASTERN STATES.																
1	South Carolina.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	Georgia.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	West Virginia.....	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
2	Virginia.....	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
20	Pennsylvania.....	2	1	3	0	0	1	0	1	1	0	0	0	2	2	3
13	New Jersey.....	2	1	1	0	1	0	0	1	1	0	0	0	1	1	3
34	New York.....	4	6	3	0	0	0	0	3	2	6	0	0	3	5	2
3	Rhode Island.....	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
9	Connecticut.....	0	2	1	2	0	0	0	0	2	0	0	0	0	2	1
2	Vermont.....	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7	Maine.....	1	0	0	0	3	0	0	0	0	0	0	0	0	0	3
4	New Hampshire.....	0	0	0	0	0	0	0	1	0	0	0	0	0	2	1
98	Total.....	9	10	8	3	4	2	0	7	8	6	0	0	6	15	16
359	Grand total.....	27	73	20	56	6	12	2	40	10	9	2	5	23	30	38



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DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1921, No. 10

# THE VISITING TEACHER

By

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BOSTON, MASS.



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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, September 4, 1920.*

SIR: I am sending herewith for publication as a bulletin of the Bureau of Education a manuscript on "The Visiting Teacher," prepared by Miss Sophia C. Gleim, fellow in the Research Department of the Women's Educational and Industrial Union.

With the attempt to make the schools more effective for all classes of children, both native and foreign born, and to make the opportunities for education to all children as nearly equal as possible, it has been found necessary to employ many agencies not originally found in the best school systems. As the functions of the school are extended, a need for a closer relation between home and school and of a more active knowledge of home conditions than teachers usually have becomes evident. Some States and cities are attempting to meet this need by providing for visiting teachers who, having no duties as regular class teachers, may give their time to visiting the homes, assisting the parents, interpreting to them the requirements of the schools, and giving special attention to children who must work and live under abnormal conditions. This plan is in its experimental stage, but it has been tried far enough to make its value felt sufficiently to justify a careful study of it and the presentation of its method in such a summary as is contained in this manuscript.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

The SECRETARY OF THE INTERIOR.



# THE VISITING TEACHER.

## INTRODUCTION.

One of the first attempts to provide education for neglected children was made in Germany in 1695 in a school founded by August Hermann Francke. A century later a like effort to educate destitute children and to save them from vagrancy and crime was made in England, when "ragged" schools, supported by voluntary contributions of private organizations, were founded. These earlier schools were conducted by persons who had an intimate knowledge of the home life of the children and were prepared to adapt or supplement the classroom work so that their educational efforts would meet the needs of neglected children. English educators recognized the necessity of continuing this personal care after the education of children of all classes was provided at public expense. Children's care committees composed of public-spirited men and women were organized for cooperation with school officials in giving personal attention to children whose wholesome development was endangered by the ignorance, neglect, or destitution of their parents or guardians. Similar activities were undertaken by residents of social settlements in the United States. These volunteer workers have shown the need of such supplementary care and have developed methods and standards of work. Like other pioneer efforts<sup>1</sup> of private associations for furthering the ideals of the schools, the work is now winning the support which promises to result in its general adoption as a part of the public-school system. The present investigation was undertaken for the purpose of discovering the extent of this tendency and for the gathering of information which would show the functions and methods of work of this new school official.

## SOURCES OF INFORMATION.

Reports of visiting and home teachers from California and various cities<sup>2</sup> were the chief sources of information. The executive secretary of the visiting teacher staff of the New York Public Education Association and the chairman of the survey committee of the National Association of Visiting Teachers furnished statistical data; this was based on a questionnaire<sup>3</sup> sent out by the committee. Personal letters from visiting teachers, school principals, and school

<sup>1</sup> Cabot, Ella Lyman, *Volunteer Help to the Schools*, p. 105.

<sup>2</sup> Chicago, Kansas City, Rochester, Mount Vernon, New York, and Boston.

<sup>3</sup> Sixty-five were sent; 57 returned reports.

superintendents supplemented this material. Field work with the visiting teacher in Chicago, case records in three public schools,<sup>4</sup> and personal interviews with visiting teachers in Kansas City, New York, and Boston were the remaining sources of information.

### SCOPE OF THE WORK.

The largest numbers of visiting and home teachers were found in Los Angeles, Oakland, and San Francisco, and in New York City, Boston, and Minneapolis. The significance of the numbers reported varies, since the name of "visiting teacher" is sometimes given to school officials whose work may supplement, overlap, cooperate with, or supplant that of the attendance officers,<sup>5</sup> vocational assistants, after-care teachers of special classes,<sup>6</sup> and coordinators of high schools.<sup>7</sup> The visiting teachers may give full or part time, depending usually upon an official connection with the public-school system or with a private organization. Thirty-six visiting teachers<sup>8</sup> stated that they were officially connected with the public schools; 21 stated that they were working under private organizations. In New York all (16) are full-time workers, 9 of them employed by the board of education<sup>9</sup> and 7 by the Public Education Association, a private organization. This is true also in Minneapolis and Chicago,<sup>10</sup> where the visiting teachers are employed by the board of education and serve as members of the attendance or vocational guidance departments. In Boston 5 full-time workers and 12 part-time workers<sup>11</sup> are employed by social settlements and other private organizations. In addition to these visitors, 45 academic teachers in the Boston continuation schools give half as much time to home visiting as to teaching, 4 vocational assistants in the trade school for girls give half of their time to home visiting, and one "after-care" teacher gives all her time to visiting the homes of the mentally defective and subnormal children.<sup>12</sup> In Newark and Glen Ridge, N. J., the workers give only part time to home visiting. In many places where the numbers employed are small, volunteers do home and school visiting. In Gary, Ind.,<sup>13</sup> and Lincoln, Nebr.,<sup>14</sup> regular

<sup>4</sup> This work was done in 1917-18 in the Wells, Jones, and Haines Practice Schools.

<sup>5</sup> The social work of this nature in Baltimore, Md., is done largely by the attendance officers.

<sup>6</sup> See table of special classes, given later.

<sup>7</sup> Seattle, Wash., has one man who is a coordinator between the high schools and industries and one woman who is a coordinator between the schools and the commercial interests. They are found also in Charlestown and Boston.

<sup>8</sup> These were from 16 different cities.

<sup>9</sup> Steps are being taken to increase this number sixfold.

<sup>10</sup> When she is specifically known as a "visiting teacher" or "home teacher," and her salary is paid by the board of education, full time is usually given to the work.

<sup>11</sup> Six of these are settlement workers.

<sup>12</sup> Kindergarten teachers generally visit in afternoons.

<sup>13</sup> Bul. No. 23, Pub. Ed. Asso., p. 8.

<sup>14</sup> Note 7 of table.

schoolroom teachers are responsible for visits to the homes and for the treatment of cases of maladjustment to school, home, and neighborhood conditions.

*Persons reported doing organized home and school visiting and their titles, by States and cities.*

States and cities. <sup>1</sup>	Title.	Visitors employed.	
		Total.	Number in city.
United States.....	Varies.....	205	
California <sup>2</sup> .....	Home teacher.....	40	
Connecticut.....	Visiting teacher.....	3	
Hartford.....	do.....		3
Iowa.....	do.....	1	
Des Moines.....	do.....		1
Illinois.....	do.....	3	
Chicago.....	do.....		3
Kentucky.....	Social worker.....	5	
Louisville <sup>3</sup> .....	do.....		5
Massachusetts.....	Varies.....	20	
Boston <sup>4</sup> .....	Home and school visitor.....		17
Newton <sup>5</sup> .....	Visiting teacher.....		1
Springfield.....	do.....		1
Worcester.....	Supervisor of attendance.....		1
Minnesota.....	Visiting teacher.....	12	
Minneapolis <sup>6</sup> .....	do.....		12
Missouri.....	do.....	1	
Kansas City.....	do.....		1
New Jersey.....	Varies.....	28	
Counties <sup>7</sup> .....	Helping teacher.....		22
Glen Ridge <sup>8</sup> .....	Visiting teacher.....		1
Montclair.....	do.....		1
Newark.....	do.....		4
Nebraska.....	Room teacher.....	50	
Lincoln <sup>9</sup> .....	do.....		50
New York.....	Visiting teacher.....	19	
New York <sup>10</sup> .....	do.....		16
Mount Vernon.....	do.....		1
Rochester.....	do.....		1
Utica.....	do.....		1
North Carolina.....	Varies.....	2	
Raleigh <sup>11</sup> .....	Visiting teacher.....		1
Rural districts.....	Perambulant teacher.....		1
Ohio.....	Varies.....	13	
Cincinnati <sup>12</sup> .....	Visiting teacher.....		3
Do.....	Home visitor.....		2
Cleveland <sup>10</sup> .....	Visiting teacher.....		4
Columbus <sup>8</sup> .....	do.....		2
Youngstown <sup>11</sup> .....	Extension teacher.....		2
Pennsylvania.....	Visiting teacher.....	2	
Philadelphia <sup>4</sup> .....	do.....		2
Wisconsin.....	do.....	6	
Milwaukee <sup>12</sup> .....	do.....		6

<sup>1</sup> In two States rural communities are included. Gary, Ind., has one register teacher in each district.

<sup>2</sup> "Only one home teacher is employed in the smaller cities, such as Long Beach, Pomona, and Sacramento."—Letter, assistant superintendent of public instruction, May 14, 1920.

<sup>3</sup> "This number includes one social worker in the high school; one visitor of the homes of every labor permit applicant who has not finished the eighth grade; one trained nurse who visits the homes of anemic children; one woman physician who visits the homes of the malnutrition cases; and one home visitor who visits in a district for unfortunate people and supervises the shower baths."—Letter, superintendent of schools, April 10, 1920.

<sup>4</sup> Places where the work is carried on by private organizations apart from the public school system.

<sup>5</sup> Reports varied from 4 to 17; 12 answered questionnaires.

<sup>6</sup> Names of counties, New Jersey School Report, 1918.

<sup>7</sup> Annual Report of the Commissioner of Education, 1916, vol. 1, Chap. XVII, p. 293.

<sup>8</sup> Seven visiting teachers in New York City and one in Columbus, Ohio, are working under private organizations.—Letter, Dorothy Griggs, formerly visiting teacher, May 8, 1920.

<sup>9</sup> One hundred and four kindergartners and their assistants give eight hours a month to visiting homes. The visiting teachers are in three high schools; one home visitor works in connection with the special school; the other home visitor has been taking up, for only three months, the pronounced cases of social maladjustment under the auspices of the Associated Charities of the city.—Personal letter, Vocation Bureau, Cincinnati Public Schools, June 14, 1920.

<sup>10</sup> "Two in the department for the blind, one for backward and defective children, one special teacher of orthopedics for crippled children, one teacher of hygiene qualified as a nurse, for follow-up work due to absence on account of illness."—Letter, superintendent of schools, May 8, 1920.

<sup>11</sup> One of these is full time. In addition a corps of social workers are working with three psychologists in three schools. Every child in the kindergarten and primary grades is studied individually.—Personal letter, Children's Service Bureau, June 10, 1920.

<sup>12</sup> These teachers work in the homes for crippled children.

California is the only State where a statute providing for home and school visitors was reported. The California home teacher act makes it permissible for boards of school trustees, or city boards of education to employ a "home teacher" for every 500 units of average daily attendance. The State board of education is definitely committed to a stimulation of thorough Americanization programs in all schools. This means an increase in the number of home teachers employed.<sup>15</sup> New Jersey has a statute<sup>16</sup> that created the office of "helping teacher" in the rural schools. The many-sided activities of these women include home visiting, and community work to secure closer cooperation of parents. It is becoming more common for State agricultural experiment stations to send field agents to farmers' clubs; they become visiting teachers in the farm home.<sup>17</sup> In North Carolina the "perambulant teacher" works among the illiterate whites in rural communities.<sup>18</sup> It is doubtful whether the term "visiting teacher" should be applied to all of these new school workers, but the fact that they have been found necessary is evidence of the growing realization that public education should not be confined to the schoolroom, but should be applied wherever it will be most effective in remedying evils or in promoting health, happiness, and efficiency.

#### THE FUNCTION OF THE VISITING TEACHER.

The function of the visiting teacher is the "adjustment of conditions in the lives of individual children to the end that they may make more normal or more profitable school progress."<sup>19</sup> This adjustment of conditions makes the visiting teacher a link between the home and many independent agencies. She first goes to the school, then to the home, and lastly enlists the cooperating agency necessary in solving her specific problem; thus she gathers up the loose threads, focusing them upon the school and the home as centers. Thus the home teacher of California serves as a vital link between the community with a foreign population and the social settlements, Young Women's Christian Association, Council of Jewish Women, Daughters of the American Revolution, the Mothers' Congress, and Parent-Teachers' Associations, and other private and municipal agencies.<sup>20</sup> Fifty-three visiting teachers in other States reported that they cooperated with various relief societies; 49 worked with childrens' courts or substitutes; 48 with recreation centers. 48 with

<sup>15</sup> Assistant superintendent of public instruction, personal letter May 15, 1920.

<sup>16</sup> N. J. Sch. Rept., 1917, p. 52; 1918, p. 53 and 58.

<sup>17</sup> Journal of Home Economics, vol. 7, p. 279-283.

<sup>18</sup> Survey, Apr. 19, 1919, p. 52, "Bringing the School to the Home."

<sup>19</sup> Johnson, Harriet M. The Visiting Teacher in New York City, p. 3.

<sup>20</sup> A Manual for Home Teachers, 1919. California Commission of Immigration and Housing, p. 17-18.



childrens' societies; 48 with girls' clubs; 48 with probation officers of juvenile courts; 45 with psychiatric clinics; 44 with church societies; 44 with boys' clubs; 33 with parents' associations; 32 with employment bureaus; and 22 with probation officers for adults. The extent of cooperation with agencies outside the schools depends largely upon resources of the communities in which the visitors are working.

An effort was made to discover the specific relation of the visiting teacher to the following agencies inside the school: (a) Attendance department; (b) vocational guidance department; (c) school nurse and child study department; (d) special classes.

(a) Attendance department. Three out of 54 visiting teachers reported that their work had no relation to the attendance department; 9 reported it to be a part of this department; 1 made no report on the subject; the activities of the 41 visiting teachers who reported cooperation varied from the giving of slight assistance to the supplanting of truant officers.

(b) Vocational guidance department. More than half (34) of the reporting visiting teachers work in schools having vocational guidance departments. Five of these are doing all the vocational guidance work in their districts, 5 reported their work as parts of the vocational guidance departments, 4 made no reports of a relation, 18 reported cooperation with these departments, and 2 reported no relation.

(c) School-nurse and child-study departments. Seven visiting teachers worked in schools having no nurses, and of the remaining number only one reported that her work bore no relation to the school nurse. Forty-six of the replies indicated very close cooperation between the school visitors and the nurses. This also was true of the relation of the work to the child-study departments or departments for subnormal children. Of the 47 visiting teachers working in schools having these departments, 36 reported cooperation, 1 worked entirely with these departments, and 1 cooperated for mental tests only. The work of 3 visiting teachers bore no relation to these departments and 6 made no reports on the subject.

(d) Special classes. One aftercare teacher works in the homes of the mentally defective and subnormal children of the 79 special classes maintained by the Boston School Committee. The work is similar to that of a visiting teacher<sup>21</sup> but distinct from that of the Boston home and school visitors. A special study made in New York City reported that the number of visiting teacher cases in the over-age group of children in the special classes was 35 per cent greater than the number of those found in the regular classes. The

<sup>21</sup> The term "humanity teacher" was suggested for the friendly type of service rendered.

extent<sup>22</sup> to which the visiting teachers make use of special classes is shown in the accompanying table which summarizes reports from 16 cities obtained by a survey committee of the National Association of Visiting Teachers.

*Use of special classes by visiting teachers in 16 cities.*

Type of class.	Number of visiting teachers who reported use of specified classes.	Type of class.	Number of visiting teachers who reported use of specified classes.
Total teachers reporting.....	53	Crippled.....	34
Mentally defective.....	46	Sight conservation.....	31
Vocational.....	43	Special defective <sup>1</sup> .....	17
Anemic or tubercular.....	40	Rapid advance <sup>2</sup> .....	16
Deaf.....	36	Disciplinary and probationary.....	6
Blind.....	34	Miscellaneous <sup>3</sup> .....	7

<sup>1</sup> Six reported classes for defective speech but a larger number of visiting teachers make use of these classes.

<sup>2</sup> The chairman of the survey committee stated "about 16."

<sup>3</sup> This group includes the following: Epileptic, 2; cardiac, 2; opportunity, 2; retarded, 1.

### TECHNIQUE.

1. *Number of schools visited.*—Over half (32) of the reporting teachers visited 1 school, 10 visited 12 or more schools or the entire city, 4 reported that they were caring for 2 schools, 6 for 3 schools, and 5 for a number varying from 4 to 7 schools. Visiting is done regularly or occasionally as the conditions demand. Fourteen teachers visited one school regularly,<sup>23</sup> 5 two schools, 4 three schools, and 4 four schools. The consensus of opinion of the visiting teachers is that the work is done more satisfactorily when they confine their activities to regular visits to one large school.

2. *Grades visited.*—The grades for which the visiting teachers' services were considered necessary varied in the different cities as follows: The largest number (19) visited in the homes of children in the kindergarten grades to the 9b grade,<sup>24</sup> 16 visited in the homes of children in "all the grades,"<sup>25</sup> 12 in the grades 7a-12,<sup>26</sup> 1 in grades 1-3, 1 in grades 1-6, 1 in grades 6-12, 1 visited the families of the kindergarten children only, 1 those of the ungraded classes, and 1 made no report.

3. *Required number of hours of work per day.*—The required number of hours of work per day varies from 5 to 8.<sup>27</sup> Over half (19) of

<sup>22</sup> Johnson, Harriet M. *The Visiting Teacher in New York City*, p. 28.

<sup>23</sup> Forty-nine reported on this part of the question.

<sup>24</sup> Ten visited in the homes of children in the kindergarten to eighth grade, 8 in grades 1-8, and 1 in grades 1a to 9b.

<sup>25</sup> One of these reported "any that need"; 1 reported "1-12, high school part time."

<sup>26</sup> Four were high school; 3, grades 8-12; 2, junior high school; 7, grades 8 and 9; 1, grades 7a to 10b; 1, high school, and eighth grade girls not planning to enter high school.

<sup>27</sup> Visiting teachers find it necessary to make home calls evenings, Sundays, and holidays.

the reporting<sup>28</sup> visiting teachers worked 7 hours per day. Five reported that there was no specified number of hours required and 10 made no reports.

4. *Average number of days worked per year.*<sup>29</sup>—Most of the visiting teachers reported that they worked throughout the school year.<sup>30</sup> This varied in length from 188 to 280 days. One reported that she worked "all year and on Saturdays" and one reported that she worked "all the year round," as she was employed in a place having a 12-month school year.

5. *Average number of cases per year.*—Almost half (23) of the reporting teachers made no reports on this question. The significance of the terms "cases"<sup>31</sup> and "visits" was confused. One visiting teacher stated that 3,000 visits per year was a conservative estimate; one reported that she made from 300 to 325 calls. The number of cases ranged from 30 (for a part-time worker) to 1,200; 4 reported 100 cases or less; 8 workers said that the average annual number ranged from 100 to 200 cases; 5 reported from 200 to 300 cases, 7 from 300 to 800 cases, 4 from 800 to 1,000 cases, and 1, 1,200 cases.<sup>32</sup>

6. *Schedules and records.*—The working and permanent record<sup>33</sup> used by the visiting teachers employed by the New York Board of Education is a 5-inch by 8-inch card. Space is provided for the following: (1) Source and reason for inquiry; (2) identification; (3) school record; (4) health record; (5) personal history; (6) out-of-school activities; (7) home conditions; (8) special difficulties; (9) agencies interested; (10) actions taken and result. A 5-inch by 8-inch folder<sup>34</sup> of four pages is used by the visiting teachers employed by the New York Public Education Association. The following items of information are found: First page—(a) identification, (b) source of and reason for inquiry, (c) school record, (d) mental and physical condition; second page—(a) environmental influences, (b) general characteristics and tendencies; third page—(a) treatment, (b) final estimate; fourth page—supplementary information. Preliminary to these working and permanent records, 3 by 5 inch cards<sup>35</sup> are filled out by the class teacher or principal and usually filed by the visiting teacher in her office. In Boston a 4 by 6 inch card is used

<sup>28</sup> Thirty-seven reported on this subject. One part-time visitor was required to work 2½ hours; 1, three hours; and 1 stated that she worked from 12 to 14 hours per day.

<sup>29</sup> Forty-six reported on this subject.

<sup>30</sup> Interpretation of the school year varied as follows: 20 days for 10 months; 20 days for 9½ months; and 30 days for 9½ months; "school year for 8 months," "5 days per week," 188, 190, 196, 200, 207, 230, 275, and 280 days were reported.

<sup>31</sup> By "case" is meant the technical term used in social work.

<sup>32</sup> One reported "250 cases and specials."

<sup>33</sup> Can be supplied on request. A similar card is used in Chicago.

<sup>34</sup> Supplied on request. See also Johnson, Harriet M., *The Visiting Teacher in New York City*, pp. 14-19.

<sup>35</sup> The items of information are: (1) Class, (2) name, (3) address, (4) father's name, (5) reason for referring to visiting teacher, (6) date, (7) date of birth.

by the visiting teachers and filed in the offices of the school principals. The form provides space for the name of the child, date of birth, attendance, scholarship, conduct, personal neatness, "home-room" teacher,<sup>36</sup> date, and information required. With this information given by the regular room teacher the visiting teacher adds on the back of the card other desirable information. She also makes a private record of the majority of her cases. The working and permanent records used by visiting teachers in other cities are similar to those in use in New York and Boston.

Reports<sup>37</sup> are made to a committee<sup>38</sup> or to the board of education. The plan of the reports varies as the need changes. The monthly reports usually contain statistical summary records of cases, notices of conferences held with teachers, principals, or social agencies, and general comments. Details are sometimes given of remedial or preventive agencies enlisted, the relief furnished, and the placement work done.<sup>39</sup>

7. *Salaries, duties, and qualifications.*—The chairman of the survey committee stated that the figures given in the reports of the salaries are no longer true.<sup>40</sup> Three different visiting teachers reported 4, 7, and 10 as the required number of years necessary to reach the maximum salaries in their respective cities. As compared with other teachers' salaries, one visiting teacher reported that her salary was less than that of the regular teachers, and four reported their salaries more than those of the elementary teachers; three reported them the same as those of the regular school-teachers. One visiting teacher reported that her salary was equal to and another that hers was greater than that of the special teacher; four stated that there was no fixed salary schedule.

The "home teacher" of California is legally licensed; in addition she should have the following qualifications: " (1) Experience in teaching and in social work, (2) good health, (3) ability to speak the language of the largest foreign group in the district, (4) complete loyalty to the principal of the school, (5) tact and patience for a delicate task, (6) ingenuity in adapting all circumstances to the main purpose, (7) an incapacity for discouragement, (8) comprehension of the reasons for and objects of the work, and, finally, (9) a sympathetic attitude toward the people, which involves some knowledge of the countries and conditions from which they come and what "America" has meant to them. The New York and Chicago visiting

<sup>36</sup> The home-room teacher is the teacher in charge of the study room.

<sup>37</sup> These are monthly, annual, or both.

<sup>38</sup> The relation of the visiting teacher to her committee is similar to that of the associated charities visitor.

<sup>39</sup> Case, Emma G., Rochester, N. Y., May, 1916, report.

<sup>40</sup> The minimum salary reported was \$600, which was the current teacher's salary in that locality; the maximum, \$2,300.

<sup>41</sup> Manual for Home Teachers, p. 13.

teachers are required to secure a visiting teacher's license. This license is granted after a satisfactory examination has been passed. Experience in teaching and in social work for four years is required in New York. The supervisor of attendance in Worcester, Mass., is required to pass a civil-service examination. The Boston home and school visitors are required to have experience in social work. The visiting teachers of New Jersey are taken from the regular teaching force. Normal-school and social-service training are required in Rochester, N. Y. The normal and academic training of the Minneapolis visiting teachers must be supplemented by training along social and vocational lines. The qualifications and requirements of visiting teachers in the remaining places vary in proportion to the extent to which the work has developed.<sup>42</sup> Visiting teachers of Boston and Chicago who lack the normal-school training and teaching experience regard both the educational and social-service training and experience as being necessary qualifications in order to do the work most satisfactorily.

#### DESCRIPTION OF THE CHILDREN UNDER THE VISITING TEACHER'S CARE.

1. *American and foreign born.*<sup>43</sup>—Of the 46 reporting visiting teachers, 5 said that the approximate number of their English-speaking cases was between 75 and 100 per cent; 2, between 50 and 75 per cent; and 8, between 25 and 50 per cent. One devoted herself exclusively to the Negro school. These reports indicate that visiting teachers work chiefly with the foreign population. The Jewish and Italian<sup>44</sup> districts were the centers of work of the largest number of visiting teachers. When making their visits, they urge the parents to attend English classes. They sometimes organize girls', boys', mothers', and men's clubs, hold meetings in homes, and often refer the cases to the specific Americanization committees that have been established in their districts. The California Americanization activities are the chief aims of the home teacher, whose work deals largely with training foreign-born housewives.

2. *Normal and defective.*—The majority (44) of those reporting worked in the homes of both normal and defective children, 8 visited regularly in the homes of defective children,<sup>45</sup> 3 took such cases

<sup>42</sup> The visiting teachers that reported on the prerequisites of the work were from 16 cities.

<sup>43</sup> Nine of the 54 visiting teachers who replied made no report on this question.

<sup>44</sup> Six visiting teachers reported the majority of their cases were Italian; nine reported Jewish including Russian Jews; eight reported Jewish with one or more of the following: Irish, Austrian, Polish, Italian, Scandinavian. Other nationalities reported were Slavic, Assyrian, Bohemian, Armenian, Indian, Swiss, Danish and Finnish, Japanese, Chinese, French, German, Greek, and Syrian.

<sup>45</sup> Two Cleveland visiting teachers in the department for the blind, and 6 Milwaukee visiting teachers working in the homes of crippled children, have been added to the number reported by the New York survey committee.

in emergencies,<sup>46</sup> 3 made the preliminary investigations<sup>47</sup> of defectives, and 3 visited only in the homes of normal children.

3. *Distinctive types.*—Among the 90 cases read,<sup>48</sup> the largest number were children “irregular in attendance” and children “failing in scholarship.” The type of service rendered to children in the first group is chiefly preventive,<sup>49</sup> and differs from that of the regular truant officers in that it is divorced from police functions. Children failing in scholarship were the most numerous of the cases reported by the visitor of Boston Girls’ High School. The frequency of the number of children of this class in other places is shown by the fact that 38 visiting teachers gave information about “specified methods<sup>50</sup> of improving scholarship.” Other predominant classes of children coming under the visiting teacher’s care are working children, adolescents in need of special care, children whose home life needs readjustment, children in need of suitable recreations, queer, restless, slow, retarded, and neurotic children—misfits, truants, and delinquents.

### CASES.

Spectacular cases of the above types are frequent, but the visiting teacher aims to diagnose the symptoms and prevent their further development. The following are illustrative of the work:

1. Three cases of infringement of the child labor law were discovered by the visiting teacher. The right of schooling was insured to the children through her cooperation with the child labor committee.

2. The demand for working papers of girls in the upper grades of one school was lessened when one year of visiting teacher service was added to that given by the regular school-teachers.

3. One overworked boy slept frequently in class. The visiting teacher found him working from 3 to 6 a. m. and from 4 to 7 p. m. The proper home adjustment was made.

<sup>46</sup> One of these worked in a deaf school and one cared for cases of normal children occasionally.

<sup>47</sup> Springfield, Mass., where the visiting teacher works in connection with the director of the psychological laboratory, is included. Springfield, Mass., Public School Report, p. 21, 1918.

<sup>48</sup> Thirty-five were read in Boston, 25 in Chicago, 20 in Kansas City, and 10 in New York.

<sup>49</sup> In New York City the visiting teachers are careful not to do the work of the regular attendance officers. In one school, Mount Vernon, the visiting teacher uses the slightest excuse for entering the homes; thus the families look upon her as a real friendly visitor and not as one coming always to render a complaint. Personal letter, January 4, 1918.

<sup>50</sup> The number of visiting teachers reporting for each method was as follows: Cooperation with parents, 38; bettering physical conditions, 34; bettering home conditions, 32; stimulating interest, 31; mental tests, 25; promotion suited to mentality, 23; extra help with lessons, 20; demotion, 16; cooperation of teacher, 2; securing a part-time job, 1; change of course, 1.

4. A pregnant and heartbroken daughter of a widower<sup>51</sup> was found to be the cause of a younger sister's neurotic condition. Home adjustments with the father were made, and the reputation of the family was saved by placing the older daughter in a suitable home.

5. In one family two children who alternated in absence from school in order to care for the two babies were found motherless. The visiting teacher made a satisfactory home adjustment and the children came to school regularly.

6. One child refused to stay at home in the evening, but after each call by the home and school visitor the periods of improved behavior increased in length.

7. Poverty at home prevented a boy from completing his school term. A scholarship was secured and the term was completed at the usual time.

8. The continued tardiness of a little girl was corrected by an explanation to the mother of the necessity of being on time.

9. An orphan child under the care of a questionable stepmother was placed in a home where suitable guardianship was insured.<sup>52</sup>

10. Physical cruelty was inflicted upon one child by a mute mother. This ceased, the child was of a happier disposition, and freed from former terrors after the visiting teacher served as mediator between the mother and child.

11. Interpretation of the school to the home and the home to the school secured greater interest on the part of both toward one child who was dull and listless. The child became brighter and happier.

12. A little girl was poorly nourished. Religious views of the family prevented her older sister from accepting a position which would have brought an increase to the family income. The situation was relieved by finding a position in a Jewish business firm.

13. A 6-year-old Italian girl was habitually absent. Her father had ordered her to admit no visitors. A call was made when the father was home. She was found caring for an insane mother and four small children. Her mother was removed to a sanitarium and provision made for the care of the children. After a short time the family was reunited in a new neighborhood.

14. The parents in a family of 10 children<sup>53</sup> were unfit guardians. The Society for the Prevention of Cruelty to Children was notified, and the children were placed in homes.

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<sup>51</sup> For the seriousness of this problem, see the unpublished report on "The Neglected Children of Widowers," by Anna M. Ely, Research Department of the Women's Educational and Industrial Union, 1920.

<sup>52</sup> This child was also placed in a special grade school.

<sup>53</sup> Three children were mentally defective, one girl was sexually immoral; one girl was deformed, one boy was of the Mongolian type, and Jennie was referred to the visiting teacher because she repeated "I A and I B" several times.

15. A widower's daughter was earning \$17 per week as a factory girl. She was persuaded by the visiting teacher to take her mother's place in the family in order to care for the younger children. The teachers, school principal, and neighbors assisted in developing her interest in home duties, so that she became a tidy housekeeper and took pride in her new position in the home.

The following table is a summary of 10 typical cases:

*Summary of 10 typical cases reported by one visiting teacher.*

[Files of the New York Public Education Association.]

Reason given for inquiry.	Statement made by teacher or principal.	Action taken by visiting teacher.
1. Need of supervision.....	Bad previous truancy record and conduct suspicious.	Personal supervision of family and agencies.
2. Extreme poverty.....	Children alone, mother works, and poor diet.	Supervision of children by neighbor, mother works less and relief given.
3. Conduct.....	Stealing from mother.....	Referred to Juvenile Protective Aid Society.
4. Need of supervision.....	Case continued from previous year.	Personal interest and supervision.
5. Troublesome at home and at school.	False standards of pleasure and dress. Hangs around streets.	Personal supervision and cooperation with outside agency.
6. Need of recreation <sup>1</sup> .....	Half-day absences.	Personal supervision.
7. Need of supervision.....	Questionable companions. Wants to be a nice girl.	Girl joined club and improved her work.
8. Scholarship and mentality.....	Acts childishly, mentally deficient, probably due to physical condition.	Physically handicapped. Deafness discovered.
9. Poor work, poor attendance, poor health.	Home conditions responsible, not poverty.	Cooperation of mother secured.
10. Conduct and scholarship.....	Below grade.....	Physical attention given and promotion followed.

<sup>1</sup> Two children, boy and girl.

The value of the visiting teacher's service is further illustrated by the fact that in one city 76 eighth-grade pupils who had left school returned after calls made by the social worker in the schools.<sup>54</sup> The following story of the B—— family shows the rôle played by the visiting teacher in rescuing children from a demoralizing home:

Henry was an Italian boy of 6 years, and was frequently absent from school. The mother eloped with a former boarder and lodger in the family.<sup>55</sup> A home visit revealed that the boy and two younger children were being cared for by the godmother of the baby. At first this woman took care of the children during the day, but later accepted the position as permanent housekeeper. She became the subject of neighborhood gossip, but endured it for the welfare of the children. Her own family became unfriendly to her later and she and the father resorted to drink. When these conditions prevailed at home the absence of Henry from school followed. Assisted by the friendship of the visitor, the godmother struggled against the drink habit for six months and then joined the father in a long debauch. The Society for the Prevention of Cruelty to Children was notified, but the agent arrived too late to find evidences of neglect.

<sup>54</sup> Louisville, Ky., 1919-20. Personal letter, superintendent of schools, Apr. 10, 1920.

<sup>55</sup> For the seriousness of this problem, see unpublished report, "The Neglected Children of Separated, Divorced, and Deserting Parents," by Sophia C. Gleim, Research Department, Women's Educational and Industrial Union, 1920.



Again, a month later, similar conditions prevailed; the aid of the policeman on the route was enlisted. The State board of charity took charge of the children and placed them in suitable homes, where they did well.

### CONCLUSIONS.

The reports of visiting teachers, home teachers, home and school visitors, and public-school social workers in the United States are in need of standardization. The best efforts in this direction have been made in the City of New York and the State of California. The specific duties of the visiting teacher will depend upon the extent to which the work of the attendance, vocational guidance departments, and departments for special classes and child study, psychological and psychiatric clinics, and public-health activities have been developed in the respective schools and communities. Visitors for both elementary and secondary schools should be provided, and when the schools are of sufficient size the work of each visitor should be confined to one school. An average of seven hours of work per day should be the maximum number of hours required. The visitor should be employed throughout the school year, and should be given a substantial vacation. Accurate records of the cases should be kept and annual reports filed. Since the work requires both training for teaching and for social service, it is fitting that the salary of the visiting teacher should be greater than that of the regular elementary or high-school teachers. Experience and efficiency should be given due consideration in attaining the established maximum salary. Tact and sympathy are essential. A private office in the school building where confidences can be exchanged should be provided. The ideal points toward the establishment, as a part of the public educational system, of a home, beautifully but simply and adequately furnished, where the visiting teacher may receive the families of the neighborhood.

Both city and county boards of education should endeavor to add to their present educational forces the services of specially trained persons whose function it would be to study the needs of individual children and to bring the school into closer relations with the home and outside agencies. This will lead to the formation of more special classes in the schools in order to care for the needs discovered by these experts.

The desirability of this closer cooperation of the school, home, and social agencies is recognized by both educators and social workers. Prof. W. H. Kilpatrick, of Teachers' College, Columbia University, pointed out the necessity of retaining a flexibility in the school system which would enable it to adjust itself to the changing needs of the child. He declared further that the visiting teacher is a sign that the

school is a genuinely up-to-date institution." C. C. Carstens, of the Massachusetts Society for the Prevention of Cruelty to Children, in a recent address stated that a large amount of the social work of the past was a "tiding over of the families into next week's misery." The social work done by the visiting teacher is of a more constructive type. "The school is the natural approach to the home where physical and moral conditions have not become very bad. One of the best means of making this social approach is through the visiting teacher."<sup>57</sup> No doubt these men express an appreciation which is becoming increasingly common among leading educators and social workers. The emphasis of prevention brings the activities of the visiting teacher into harmony with the more progressive types of social work, and suggests that it may become a means of minimizing retardation, truancy, and delinquency.<sup>58</sup> Thus, the visiting teacher will become a part of a scientific program to be worked out to perfect our American educational system.

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DEPARTMENT OF THE INTERIOR  
65. BUREAU OF EDUCATION

BULLETIN, 1921, No. 11

# PHARMACEUTICAL EDUCATION

By

WORTLEY F. RUDD  
IN COLLABORATION WITH  
P. F. FACKENTHALL

[Advance Sheets from the Biennial Survey of Education  
in the United States, 1918-1920]



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CONTENTS.—The beginnings of pharmaceutical education—The birth of prerequisite legislation—Classes of pharmacy schools—The American conference of pharmaceutical faculties—The United States Pharmacopoeia National Formulary and the Food and Drugs Act—Journal of the American Pharmaceutical Association—The period of 1918–1920—Attitude of the trade journals toward progress in pharmaceutical education—The 1920 United States Pharmacopoeial Convention.

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### THE BEGINNINGS OF PHARMACEUTICAL EDUCATION.

Any history of pharmaceutical education during the two years 1918 to 1920 would be wholly incomplete without a review of the influences which have brought about the conditions during the period under consideration.

In pharmacy, as in medicine and law, the preceptorial system largely prevailed for the first century of pharmacy in the United States. Previous to 1851 there were but 3 teaching schools of pharmacy in existence; and only one, the Philadelphia College of Pharmacy, had sufficient life to maintain itself as a bona fide educational institution. In 1873 there were 11 teaching institutions in active operation, located in Philadelphia, New York, Cincinnati, Baltimore, St. Louis, Boston, Chicago, Louisville, Washington, Nashville, and San Francisco, with an attendance of approximately 600 students.<sup>1</sup>

The organization of these schools was due largely to the educational stimulus disseminated by the American Pharmaceutical Association, which had been organized in 1852, and to the various State pharmaceutical associations, which at that time were beginning to exert considerable influence.

At the twenty-first annual meeting of the American Pharmaceutical Association, Albert E. Ebert, in his presidential address, thus commented upon the organization of pharmaceutical schools:

Although it is by no means desirable to multiply these schools to an unlimited extent, as this would diminish their usefulness by dividing their strength, yet the time is not far distant when it will seem necessary that each State shall possess such an educational organization, as good effects of such institutions can not be questioned in their relation to the public welfare, and therefore should be fostered by the several States where such schools are established.<sup>1</sup>

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<sup>1</sup> Proc. Amer. Phar. Assoc., 1873, p. 52.

The nature of the work done in these early institutions is summed up by Dr. Edward Kremers, dean of the school of pharmacy of the University of Wisconsin, as follows:<sup>2</sup>

As a matter of fact, the early history of all these institutions clearly shows that they were "Fortbildungsanstalten" closely affiliated with the daily routine of the drug store. The idea was not so much to give a thorough training in the fundamental sciences as to supplement the unsystematic training of the stores by a course of evening lectures. This truth is particularly emphasized by the fact that the clerk who had served an apprenticeship of two or more years attended the same course of evening lectures at least twice. It was the apprenticeship system improved, but still essentially the apprenticeship system. The time spent in the drug store was, therefore, the prime requisite to a certificate of proficiency. The course or courses of lectures simply served as a kind of superstructure, their prime object being to bring into some system the information and experience irregularly acquired during an apprenticeship and assistanceship of four or more years.

In 1887 the number of teaching institutions had increased from 11, as reported in 1873, to 28, the additional ones in the order of their organization being as follows: Pittsburg, Vanderbilt, Albany, Iowa (Drake University), Cleveland, Wisconsin, Ohio Northern, Purdue, Ohio State, Kansas City, University of Kansas, University of Iowa, Northwestern, and Buffalo.

Dr. H. L. Taylor calls attention to the fact that it required more than half a century to establish half of these institutions, and the other half sprang up within a decade.<sup>3</sup>

From the best information available we find that in 1887 there was a total of 2,773 students matriculated in the schools then in existence, with 669 graduates that year.<sup>4</sup>

The great majority of these schools were night schools, the students' classes beginning after 4 o'clock in the afternoon and continuing as late as 10.30 p. m.<sup>5</sup> These were three-day schools, the first year's work coming on Mondays, Wednesdays, and Fridays, the second year's work on Tuesdays, Thursdays, and Saturdays. The school year began about the first of October and closed early in March.

More than half of the students attended college for the first year only, being able to meet the legal requirements for the practice of pharmacy without completing the prescribed college course.

Preliminary educational requirements were limited to a grammar school certificate or an examination that required a knowledge of arithmetic, geography, and grammar, as far as was taught in the grammar schools.<sup>6</sup>

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<sup>2</sup> Proc. Amer. Conf. Phar. Faculties, 4th ann. meeting, 1903, p. 5.

<sup>3</sup> Pharmaceutical Era, Mar., 1912, p. 178.

<sup>4</sup> Ibid., May, 1912, p. 333.

<sup>5</sup> Ibid., May, 1912, p. 334.

<sup>6</sup> Ibid., Apr., 1912, p. 204.

### THE ENACTMENT OF NEEDED LAWS.

The conditions that existed at that time led pharmaceutical educators to realize that proper advancement in pharmacy was impossible without legislative enactment covering both preliminary requirements and college training as prerequisites for examination as registered pharmacists.

Naturally such a movement was met with bitter opposition on the part of those who saw in this a curtailment in the supply of registered clerks, and, second, by those who honestly believed that students should be allowed to acquire a knowledge of pharmacy by the methods most available to them.

Unfortunately, from the very beginning to the present time the same opposition has existed and has done more to retard advancement in pharmaceutical education than any other single factor.

Between January 1, 1887, and January 1, 1900, 30 colleges of pharmacy were established and three went out of existence.<sup>7</sup>

### CLASSES OF PHARMACY SCHOOLS.

The department of pharmacy of Tulane University of Louisiana<sup>8</sup> may properly claim the honor of being the oldest of the schools of pharmacy connected with a university. Between 1834 and 1887 diplomas were conferred upon 165 graduates in pharmacy from that institution.

Although Tulane did not at that time have a coordinate school of pharmacy, the graduates were given courses in materia medica, therapeutics, chemistry, and chemistry laboratory by the staff of the medical department; and before the degree of graduate in pharmacy was conferred, the applicant furnished evidence of having two years of practical experience under a competent pharmacist.

While this school was not a university school of pharmacy in the present acceptation of the term, yet its influence stimulated the development of university education as it now exists.

In 1868 the University of Michigan established the first coordinate school of pharmacy, as a university unit.

The following statement, from the address of Dr. Edward Kremers furnishes a clear exposition of the divergent educational ideals which have been confronting pharmaceutical education from its very beginning:<sup>9</sup>

There are two distinct tendencies which manifest themselves to the student of pharmaceutical education in this country; the first found its highest expression in the establishment of the older colleges of pharmacy, the outcome of the ambitions and ideals of the apothecary guilds of several of our larger

<sup>7</sup> *Ibid.*, June, 1912, p. 380.

<sup>8</sup> *Ibid.*, March, 1912, p. 180.

<sup>9</sup> *Proc. Amer. Conf. Phar. Faculties*, 4th Ann. Meeting, 1905, p. 4.

eastern cities, a product of English ideas, traditions, and influences; the second found its expression in the establishment of departments and schools of pharmacy at our State universities, at a time when American educational ideas generally were undergoing marked changes due to the influence of German educational ideas and methods.

It is noteworthy that the educational bulwarks of the Colonies, now the pride of the respective Eastern States, have never given any serious attention to teaching pharmacy. For many years, it is true, medicines were largely dispensed by the colonial physician, and later the druggist evidently did not aspire to be more than a tradesman with the qualifications of a tradesman. The condition was not unlike that in England, where the pharmacist, whether he was termed apothecary, or chemist and druggist, as was later the case, gradually made himself independent from a position of subserviency to the physician. But, instead of strongly developing his own position, he followed the path of his former master. The result was a calling that was neither purely mercantile nor belonged to the learned professions; a profession that commanded little or no respect, but became the butt of ridicule on every hand as is clearly shown in English fiction.

With English traditions as a guide, it was but natural, therefore, that Harvard and Yale, Columbia and Pennsylvania, although they made provision not only for the traditional college course, but also for theology, law, and medicine, paid no attention to the needs of pharmacy.

The introduction of university standards into the field of pharmaceutical education, as brought about by the University of Michigan, is an outstanding event in the history of American pharmacy.

This change in the old order was followed by other State universities as follows:<sup>10</sup> Wisconsin in 1883, Kansas and Iowa in 1885, Minnesota in 1892, etc.

By 1895 the university ideals were so firmly established that we find the following statement in the proceedings of the section on education and legislation of the American Pharmaceutical Association:<sup>11</sup>

Institutions that were founded by "impractical" university teachers have proven their right of existence to such an extent that those who criticised them in former days, though still ostensibly maintaining their earlier ground, are in reality undermining their own foundation by silently accepting the ground of their supposed opponents.

## THE AMERICAN CONFERENCE OF PHARMACEUTICAL FACULTIES.

The beginning of the twentieth century found 56 schools in active operation, with a total attendance of 3,551 students. These 56 schools were working as independent units, with no uniformity in entrance requirements, curricula, or degrees conferred.

As far back as 1870 a conference of delegates from colleges of pharmacy met in Baltimore in answer to a call issued by the Maryland College of Pharmacy.<sup>12</sup>

<sup>10</sup> Pharmaceutical Era, March, 1912, p. 178; June, 1912, p. 389.

<sup>11</sup> Proc. Amer. Phar. Assoc., 1895, p. 448.

<sup>12</sup> Proc. Amer. Conf. Phar. Faculties, 1906, p. 8.

We have no report of the minutes of this meeting, nor of subsequent ones, except in the minutes of the meetings of the Philadelphia College of Pharmacy, as published in the *American Journal of Pharmacy*. Joseph Roberts was president and J. Faris Moore secretary of the first meeting. The constitution declared the object to be a uniform standard for the graduation of pharmacy students. Seven recommendations were made at the first meeting for consideration at the second convention. The most important one seems to have been the demanding of four years of practical experience before graduation.

At the 1883 meeting the department of pharmacy of the University of Michigan was refused admission because it did not make this requirement. The degree of doctor of pharmacy was also unanimously voted down. The last reference to work of this organization appears in 1886.

The period from 1886 to 1894 seems barren of organized effort toward unity in pharmaceutical education. Just prior to the 1894 meeting of the American Pharmaceutical Association, James H. Beal and George B. Kauffman issued a circular letter inviting a number of colleges to meet in conference at Asheville, N. C. This effort failed to accomplish the purpose for which it was intended. Six years later Henry P. Hynson, secretary of the Maryland College of Pharmacy, issued a similar call which met with much better success.

The preliminary organization of the American Conference of Pharmaceutical Faculties was consummated at Richmond, Va., May 8, 1900.<sup>13</sup> Representatives were present from the following pharmacy schools:

Department of Pharmacy, College of Physicians and Surgeons, San Francisco, Calif.

National College of Pharmacy, Washington, D. C.

Atlanta College of Pharmacy, Atlanta, Ga.

Department of Pharmacy, Northwestern University, Chicago, Ill.

Highland Park College of Pharmacy, Des Moines, Iowa.

Department of Pharmacy, University of Kansas, Lawrence, Kans.

Louisville College of Pharmacy, Louisville, Ky.

Massachusetts College of Pharmacy, Boston, Mass.

Maryland College of Pharmacy, Baltimore, Md.

Department of Pharmacy, University of Michigan, Ann Arbor, Mich.

St. Louis College of Pharmacy, St. Louis, Mo.

Department of Pharmacy, Union University, Albany, N. Y.

Brooklyn College of Pharmacy, Brooklyn, N. Y.

College of Pharmacy of the City of New York, New York, N. Y.

Ohio State University, Department of Pharmacy, Columbus, Ohio.

Department of Pharmacy, Selo, Ohio.

Philadelphia College of Pharmacy, Philadelphia, Pa.

Department of Pharmacy, Medico-Chirurgical College, Philadelphia, Pa.

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<sup>13</sup> *Proc. Amer. Conf. Phar. Faculties*, 1906, p. 9.

Department of Pharmacy, Western University of Pennsylvania, Pittsburgh, Pa.

Department of Pharmacy, Vanderbilt University, Nashville, Tenn.

Department of Pharmacy, University of Wisconsin, Madison, Wis.

The chairman of the organization committee, Jos. P. Remington, presented a provisional constitution, which was read and approved, the most pertinent paragraph of which was as follows:

The object of this conference shall be to promote the interests of pharmaceutical education.

The birth of the organization marks the first successful effort toward proper standardization of pharmaceutical education and is, therefore, the most important event in its history.

The problems which the conference faced in its inception and to which it has continuously given attention during its 20 years of existence are: Preliminary education, curricula, degrees, facilities, faculties, and prerequisite legislation. As has been stated before, the completion of an ordinary grammar school education was the sole requirement for matriculation in the majority of pharmacy schools.

The effort to raise these requirements originated with the schools having organic connection with State universities. The independent schools, having no other source of income than tuition fees, naturally viewed with concern any step that would tend to curtail their enrollment. The attitude of the State examining boards and the existence of numerous correspondence schools and "quiz" schools made the situation a most difficult one.

As late as 1912 we find the following conditions obtaining with regard to preliminary education<sup>14</sup> necessary for examination by licensing boards:<sup>15</sup> 24 States make no requirement whatever, 12 require a grammar school education only, 7 in which the board is given authority to fix requirements, 7 require one year or more of high-school work, and 2 require high-school graduation.

From a close study of the conditions as indicated by the above data, it is apparent that had the independent schools raised their entrance requirements much above those prescribed by the licensing boards in the various States, they would undoubtedly have been faced with the problem of having a large proportion of their prospective students turned to quiz schools and correspondence schools.

Not until 1904, when the National Association Boards of Pharmacy was organized,<sup>16</sup> was there any attempt on the part of the State boards to bring about better conditions in regard to preliminary educational requirements for registration.

<sup>14</sup> Pharmaceutical Era, Jan., 1912, pp. 21-24.

<sup>15</sup> This includes Alaska, Hawaii, the Philippines, and Porto Rico.

<sup>16</sup> Pharmaceutical Era, June, 1912, p. 393.



In 1905 requirements for entrance into conference schools was raised to a minimum of one year of high-school work. The first State prerequisite law became effective at the same time in New York.

Coincident with the latter event, the board of regents of New York set about to determine what should be the proper standards for the registration of schools of pharmacy in that State.<sup>17</sup> A conference was, therefore, held and a committee appointed to outline a course for the schools of pharmacy and a syllabus to govern both the schools registered by the regents and the examinations set by the State board of pharmacy. This committee conceived the idea of giving the work a national character. In September, 1906, an invitation was extended to the National Association Boards of Pharmacy and the American Conference of Pharmaceutical Faculties, each to elect a representative on the committee.

Through correspondence and occasional meetings the committee continued its work, and the first edition of the pharmaceutical syllabus was issued in 1910. This was approved by the organizations represented and was adopted to cover the syllabus period, August 1, 1910, to July 31, 1915.

Thus was brought to a successful issue the effort to bring together the teaching institutions and the examining boards in a comprehensive and permanent agreement regarding the powers and obligations of each. By July, 1912, 27 examining boards had approved the idea and adopted the syllabus in whole or in part, and 62 of the 83 then existing schools had taken the same action.

#### THE UNITED STATES PHARMACOPŒIA AND THE NATIONAL FORMULARY.

The passage of the Food and Drugs Act in 1906, and the subsequent adoption of the United States Pharmacopœia and the National Formulary as the official Federal standards, gave them a legal standing, which they had not heretofore been accorded. This legal recognition has had a marked influence upon the scientific character of later editions and is reflected in more scientific methods in pharmaceutical education.

#### JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

Prior to 1912 the proceedings of the American Pharmaceutical Association had been published annually as a single volume. Beginning with January of that year the Journal of the American Pharmaceutical Association was established and has been issued monthly since that time.<sup>18</sup> While the prime object of this publica-

<sup>17</sup> *Ibid.*, Sept., 1912, p. 576.

<sup>18</sup> *Amer. Jour. of Phar.*, Mar., 1912, p. 130.

tion originally was to furnish a more direct and speedy means of communication between the association and its members, it has, however, in the last few years become a scientific publication which has proved a strong stabilizing force in American pharmacy. Coincident with the inauguration of the Journal, plans were perfected whereby all pharmaceutical literature should be abstracted, published annually, and distributed to all members of the American Pharmaceutical Association as the yearbook of the association. Those forces in pharmaceutical education with which this paper has dealt heretofore began to exert their most potent influence in the period from 1912 to 1918.

Beginning in 1915, prerequisite legislation made rapid progress. During the next three years more States adopted prerequisite laws than had taken this step in all the previous years. The American Conference of Pharmaceutical Faculties had increased entrance requirements to two years of high-school work or its equivalent. Two States, Ohio and Illinois, by legislative enactment and ruling of the department of education respectively, raised their requirements for the practice of pharmacy to four years of high-school work, and in addition graduation from a recognized school of pharmacy. The educational ideals of the universities of the Western States gained ground rapidly, and it began to be apparent that their influence in pharmaceutical education must ultimately dominate the whole country.

The National Association of Boards of Pharmacy and the American Conference of Pharmaceutical Faculties had committed themselves to both a high-school requirement and graduation in pharmacy not later than 1923. A number of the schools of the conference were voluntarily increasing their requirements to four years of high school. More than half of the students entering all conference schools were high-school graduates. The outlook for much more rapid progress was, therefore, very bright when America entered the World War.

#### THE PERIOD OF 1918-1920.

This review of pharmaceutical education prior to 1918 serves as a necessary background for the study of the most crucial period in its history.

Although the above is, as a whole, a record of progress, nevertheless this progress had not been sufficiently uniform in all parts of the country to give to American pharmacists the professional status which many within its ranks believed should be accorded them.

That the ultimate standard in pharmacy was no higher than the lowest State and school requirement had been evident to the leaders in pharmacy from the organization of the conference. The points of

view of the university schools and the independent schools had been so divergent at times that a division in the conference ranks seemed imminent. Fortunately, however, such schism was averted by a few far-seeing men who recognized the conference as the one organization through which the whole status of pharmacy could be advanced.

The failure of American pharmacists to receive professional recognition in the Army and Navy when we entered the World War demonstrated that, in spite of the advancement already made, much remained to be accomplished in order that pharmacy might attain a status comparable with dentistry and medicine. It became evident that, had the university ideals prevailed in pharmaceutical education, pharmacy would have been spared the embarrassment and chagrin occasioned by such failure.

The Government, in its published requirements for organization of the Student Army Training Corps, made it very clear that it considered graduation from a high school or its equivalent a necessary entrance requirement for colleges of all kinds, and it refused to recognize colleges with less requirements.<sup>19</sup>

This announcement naturally created widespread concern and even alarm among the schools that were not requiring as much as four years of high-school work for entrance. The very existence of some of the oldest and most influential pharmaceutical schools in the country, which had no organic connection with any other college or university as a parent institution and which were maintaining only the minimum conference requirement for entrance, was therefore in jeopardy should the war continue.

At the 1918 joint meeting of the American Pharmaceutical Association and of the Conference of Pharmaceutical Faculties, held in Chicago, this subject had a prominent place in the public discussions and was clearly the thought uppermost in the minds of the majority of those present.

In a paper read at this meeting Prof. Wulling<sup>20</sup> made the following statement:

It should be said that the entire body pharmaceutic is partly, even largely, at fault in the matter, because it has not been sufficiently interested and aggressive in the very element fundamental to the welfare of the profession, and therefore fundamental to the welfare of those whom the calling serves. The Government has practically said that we pharmacists as a class are not sufficiently educated and intelligent to be recognized as among the agencies qualified to be called upon to help prosecute this terrible war. This is in substance an indictment not pleasant to contemplate. We ought forthwith to create such standards that this blot on our escutcheon would be forever removed. Talking and commiserating about the matter will not remedy the situation. A little courage and determined, united action are the remedy.

<sup>19</sup> Proc. Amer. Conf. Phar. Faculties, 1919, p. 11.

<sup>20</sup> Ibid., 1918, p. 30.

Prof. Jordan, chairman of section on education and legislation, in his address said: <sup>21</sup>

Not until the retail pharmacists of the United States awake to the importance of higher entrance requirements for their profession and demand them will we be able to place pharmaceutical education on a basis that will command the respect of our sister professions and of the public. As long as the retail pharmacists demand cheap registered men and lend their support to diploma factories that turn them out, just so long will pharmaceutical education be at a low ebb.

With a single exception, we find the sentiment of the 1918 meeting overwhelmingly in sympathy with this spirit. <sup>22</sup>

Prof. Edward Spease, dean of the school of pharmacy of Western Reserve University, had taken up with the Surgeon General of the Army the matter of establishing Students' Army Training Corps units in those schools of pharmacy able to meet the entrance requirements, etc., referred to in the published program referred to above.

Col. H. D. Arnold, representing the Surgeon General's Office, came to Chicago, and an informal conference was held. Up to that time no provision had been made for keeping pharmacy students in school, as had been done in the case of medical and dental students. While Col. Arnold could give no assurance of what would be done in this regard, he stated that the whole matter would be worked out in connection with the Army educational plan, and a more representative conference be called as soon as possible. This conference was held in Washington, September 30, 1918. The following schools were asked to send representatives: University of Michigan, North Carolina, Minnesota, Nebraska, Western Reserve, Columbia (New York College of Pharmacy), Purdue, Massachusetts College of Pharmacy, and Medical College of Virginia. All of them responded except the University of North Carolina and Massachusetts College of Pharmacy. This meeting, presided over by Dr. R. C. McLaurin, chairman of the whole Government educational plan, proved to be an event of far-reaching importance. For the first time it was made perfectly clear that colleges of pharmacy must demand of their students the same conditions for entrance and the same type of professional work that was demanded in other professional schools. For the first time the Federal Government stepped in and attempted some sort of classification of pharmaceutical schools with reference to their availability as centers for Students' Army Training Corps units.

For the first time the ideals of the university schools of pharmacy were completely vindicated.

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<sup>21</sup> Jour. Amer. Phar. Assoc., Dec., 1918, p. 1062.

<sup>22</sup> Proc. Amer. Conf. Phar. Faculties, 1918, p. 98.

Following the published report of the work of this conference, a storm of protest was raised by those institutions which were not maintaining the standards described in it, and which consequently did not receive recognition. Had the war continued through the session 1918-19 and into 1919-20, it is more than probable that very few of the so-called proprietary schools of pharmacy would have survived. Despite the fact of the signing of the armistice in November, 1918, and the almost immediate disbanding of the Student Army Training Corps units, the salutary influence of the classification referred to above became manifest.

Some of the colleges of pharmacy, previously counted as reactionary, at once announced their determination to raise entrance requirements to a full high-school course. Others raised entrance requirements from the conference minimum of two years of high school to three in 1920-21 and four in 1921-22, thus anticipating by one or more years the conference agreement of four years of high school in 1923. It is difficult to estimate the good effects of such an awakening on the part of those schools which heretofore had stood out for a conservative policy in the conference of faculties.

The generation of pharmacists now in training will be able to look back on the Washington conference of September 30, 1918, with a feeling of gratitude that from it emanated an advance in pharmaceutical ideals that already is having a marked effect.

With the close of hostilities and the rapid return of 4,000,000 men to civilian life, every pharmacy school in America found its freshman class of 1919-20 filled to capacity. Fresh, as many of these men were from the distractions of Army life, they found great difficulty in adjusting themselves to the demands of academic life.

In many instances men were returning to colleges of pharmacy to complete a course interrupted by the period of the war. It has, therefore, been exceedingly difficult to maintain high standards of scholarship for the past two years. With the entrance classes in 1920, however, this condition has been materially changed, and the colleges are now demanding a grade of work not heretofore attempted.

The rank and file of men engaged in pharmaceutical work, as well as of women, are now beginning to study the status of pharmacy as never before. What are the basic causes which, functioning through the history of American pharmacy, are most responsible for its present condition is the question most frequently asked. The one answer that seems to most nearly cover the ground is that all of pharmaceutical education seems to have been predicated upon the assumption that the public needs more, rather than better, pharmaceutical service. Prior to about 1905, medical education was func-

tioning along these same general lines. The complete overthrow of this conception in medicine is too well known to need very much comment in this article. Fewer doctors, but better doctors, is a slogan that has sounded the death knell of probably half of the medical schools in operation in America in 1900. A farseeing group of medical men gained control of medical education with the result that, with a population of about 25 per cent more than in 1900, the United States is now graduating annually less than half as many doctors as were being graduated at that time. With anything like a just distribution of this smaller number, the public is getting much better medical service than ever before. In spite of all the progress in American pharmacy which has been recorded in this article, it must be admitted that no such farseeing and influential group has been able to gain control in pharmacy. The result has been the licensing of from two to three times as many potential proprietors as the public has needed to render efficient pharmaceutical service.

The number of drug stores in the United States is probably three times as large as is necessary, resulting in a form of competition which is good for neither pharmacy nor the public. Since the laws of all States in the Union require that a pharmacy must be in charge of a licensed pharmacist, the one way to limit the number of stores is to limit the number of potential proprietors. For the first time, it seems to the writer, American pharmacists are beginning to realize the full significance of this fact. It is an omen for good that can be measured only by what the recognition of a similar condition in medicine 20 years ago has done for American medicine.

For a number of years it has been apparent to a majority of the members of the conference of faculties that some standardizing agency should investigate and classify the schools of pharmacy, much as the Carnegie Foundation has done with the medical schools.

By unanimous vote the foundation was requested to undertake this work for pharmacy, but up to the present time they have not been able to do so, due to the pressure of other investigations already in progress. At the 1919 meeting the conference recommitted itself to the policy of having the schools of pharmacy investigated and classified. A special committee of the conference is now at work, with the hope that in the near future the foundation may see its way clear to begin this work.

The advantage of having this investigation undertaken by some competent and disinterested agency is apparent. The result of such an investigation will doubtless reveal the weak spots in our present system and furnish the conference the basis for a thorough house-cleaning.

**ATTITUDE OF THE TRADE JOURNALS TOWARD PROGRESS IN  
PHARMACEUTICAL EDUCATION.**

The attitude of a large majority of the trade journals toward progress in pharmaceutical education has been one of whole-hearted support. Despite the fact that advanced educational requirements must inevitably mean fewer potential proprietors and fewer drug stores, these journals, whose very existence is intimately tied up with the distribution and sale of drug products, have been willing to stand for a policy which can mean nothing less than a curtailment in the sale of many of these. It can be denied by no one that such a stand on their part has had a tremendous influence in assisting in bringing about such advancement as has been made so far.

**THE 1920 UNITED STATES PHARMACOPŒIAL CONVENTION.**

The influence of the university school of pharmacy teacher on American pharmacy manifested itself in the personnel of the committee of revision for the tenth decennial revision of the United States Pharmacopœia. On previous revision committees the number of university school teachers was very small, while on the present committee the number has been more than trebled.

At the 1920 meeting of the American Conference of Pharmaceutical Faculties, the tendencies for progress in pharmaceutical education which have been here enumerated culminated in a pledge that beginning in 1925 all conference school courses be not less than three years and, further, that as soon thereafter as possible they require a full four-year course in pharmacy and give only the bachelor of science degree.

With the consummation of this pledge on the part of the conference and the appointment of a joint committee from the conference, the National Association Boards of Pharmacy, and the American Pharmaceutical Association to work for prerequisite laws, pharmaceutical education in America seems to be entering upon a period that even the most radical hardly dared hope for before America entered the World War.







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ENGLISH GRAMMAR  
IN AMERICAN SCHOOLS  
BEFORE 1850

By

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# ENGLISH GRAMMAR IN AMERICAN SCHOOLS BEFORE 1850.

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"A history of English grammar in the United States would afford some amusement if a rational mind could derive any amusement from perusing a record of abortive attempts to teach the correct use of language by every means but actual practice in the art of speaking and writing it"—WALLIS (W. B. FOWLE) (1850).

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## INTRODUCTION.

### PRIMARY PURPOSES OF THE STUDY.

English grammar, as a formal subject, distinct from other branches of instruction in the vernacular, made but sporadic appearances in the American schools before 1775. After the Revolution its rise was extremely rapid. English grammar gained momentum as the hold of Latin grammar weakened, and by the end of the first quarter of the nineteenth century it became so generally taught that the common term grammar school, formerly applied to the secondary school of the Latin-grammar type, was now by common consent used to designate an intermediate school with English grammar as its central study. After 1825 the prominence of English grammar became gradually more marked, until it reached its height about 1850-1875. Then began a period of decline, continuing until the time of the Committee of Fifteen, which made its report in 1895.<sup>1</sup>

The past 25 years have seen a revival of attention to grammar, but of a very much saner type than before. No other study in the curriculum has had a more spectacular rise and a more dramatic fall. Moreover, concerning no other study to-day are educators more in doubt.<sup>2</sup>

The first purpose of this study is to trace the course of this rise and fall, with the changing educational ideals and theories accompanying it; to analyze the causes of the varied changes of the subject, and to determine when, where, why, and by whom the successive modifications were inaugurated and carried out prior to 1850.

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<sup>1</sup> Rept. Com. Fifteen, Jour. Proc., N. E. A., 1895, p. 232. For recommendations concerning grammar see Rept. Com. Fifteen, Educational Review, IX, 234-41.

<sup>2</sup> The National Council of Teachers of English on Nov. 27, 1915, in Chicago, appointed a committee to consider and recommend a suitable treatment in the schools of formal grammar.

The second purpose of this dissertation is to arrange systematically these varying methods used from 1750 to 1850 and to show how they are interrelated both with the shifting conceptions of the nature and purpose of grammar and with the place given the study in the curriculum.

No effort seems to have been made to develop these two important aspects of English grammar with historical accuracy. Indeed, treatises on the general curriculum, in their infrequent references to this particular branch of the vernacular, are filled with inaccurate statements of fact and with misleading generalizations, particularly in regard to the early periods.<sup>3</sup> Only one who has had to deal with such inaccuracies can realize how difficult it is to ascertain the truth concerning English grammar. It is therefore with due reservations that the writer states, as his third purpose, an effort to establish with concrete data a basis of reliable facts, especially in the vague period of English grammar before the American Revolution.

A fourth purpose which this study has been compelled to consider incidentally is to show how grammar was interrelated with declamation, oratory, composition, and literature, as these five branches of instruction in the mother tongue of a higher order than reading, writing, and spelling gradually made their way into the program of American schools.

### SOURCES.

This investigation rests primarily upon an intensive examination of early English grammars, with special attention to those in use from 1750 to 1850. The date 1750 has been determined upon as most suitable to mark the beginnings of instruction in formal English grammar in America.<sup>4</sup>

The grammars, then, of the eighteenth century, many of which passed through several editions both in England and America, were

<sup>3</sup> Three examples of such errors will suffice to illustrate. One writer affirms: "English Grammar was there (in Caleb Bingham's school, 1790) taught for the first time in Boston." W. B. Fowle, *English Grammar*, C. S. J., XII (1850), 72. Here is an error of at least 23 years (see Ch. II, p. 23, which has been widely accepted as stating the truth. Again, Noah Webster affirmed that "no English grammar was generally taught in common schools when I was young," (1770. *Am. J. of Ed.*, XIII, 124. Letter to Henry Barnard, dated 1840.) This, coming from the author of at least the fifth American grammar (see Chap. II) (not the first, as commonly believed), has been largely influential in misinforming later writers upon the curriculum. Again, so careful a writer as Reeder asserts, concerning Noah Webster's "Grammatical Institutes of the English Language," "these books [a speller, grammar, and reader, 1783-1785] were the first works of the kind published in the United States. They were gradually introduced into most of the schools of the country." Reeder, *Hist. Dev. of Sch. Readers*, etc., 30. On the contrary, Webster's grammar was not the first American grammar, and it enjoyed neither a long nor an extensive use as a textbook. W. B. Fowle, *op. cit.*, 74 and 203. Reeder's statement is accurate concerning the speller and the reader, but it is quite erroneous concerning Part. II of Webster's series.

<sup>4</sup> See Chap. II, p. 33.

largely influential in determining school practices of the day. Book learning in the eighteenth century had an even more literal significance than it has to-day in many an ill-conducted classroom. "As the textbook, so the study" is a comparatively safe assumption.

So, too, for primary evidence as to the changes in methods of instruction, beginning about 1823, the writer has turned to the leading texts of the various periods. For example, this dissertation points out that 1850 was the central turning point in the history of methods in grammar.<sup>5</sup> Greene's "Analysis" of 1847 was the culmination of various influences breaking away from the older conceptions and the forerunner of numerous other textbooks of the next 25 years. Likewise Swinton's *Language Lessons*, of 1873, came as the result of scattered agitation and efforts of the previous quarter century, and in their wide adoption Swinton's *Lessons* fastened upon the schools the new idea of grammar as incidental to exercises in writing and speaking. And, of a more recent period, Swett's *Grammar*, with its imitators, has given the still newer turn of incidental study to the subject of formal grammar.

In addition to the textbooks themselves the educational writings of authors contemporary with the various periods have thrown considerable light upon various advances made in classroom methods. To be sure, a commentator like Comenius, Hoole, Brinsley, Locke, Franklin, or Mann is usually, in his theory, more or less in advance of his time, and the reforms he advocates are indicative of methods which do not become general for a considerable period after his advocacy of them.<sup>6</sup>

In addition, the writer is indebted to Dr. Marcus W. Jernegan, of the University of Chicago, for generous advice and assistance, and especially for permission to use his voluminous data on private schools taken from colonial newspapers. This material has been of invaluable aid, especially in indicating many of the private schools of the eighteenth century whose schoolmasters were pioneers in adding English grammar to their curricula.

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<sup>5</sup> See Chap. VI, p. 133.

<sup>6</sup> For example, in 1786 Benjamin Rush, of Pennsylvania, advocated, concerning the teaching of English grammar, principles which even in 1920 are very far from being accomplished.

"Let the first eight years of a boy's time be employed in learning to speak, spell, read, and write the English language. For this purpose, let him be committed to the care of a master who speaks correctly at all times, and let the books he reads be written in a simple but correct style. During these years let not an English grammar by any means be put into his hands. It is to most boys under 12 years of age an unintelligible book. As well might we contend that a boy should be taught the names and number of the humors of the eye or the muscles of the tongue, in order to learn to see or to speak, as be taught the English language by means of grammar. Sancho Panza in attempting to learn to read by chewing the four and twenty letters of the alphabet did not exhibit a greater absurdity than a boy of seven or eight years old does in committing grammar rules to memory in order to understand the English language." Wickersham, *Hist. of Ed. in Pa.*, 234. "Between his fourteenth and eighteenth years he should be instructed in grammar, oratory," etc. *Ibid.*, 255.

The history of the actual teaching of English grammar is quite different from a history of the theories of teaching grammar. Throughout this study the author has endeavored to keep strictly to the former point of view—that is, to keep a firm hold upon the actual classroom practices of successive periods. Evidence of an extensive sale of textbooks, for example, is taken as reliable proof as to what constituted the subject matter of schoolroom activities.

More reliable, however, than textbooks or educational writings for determining the exact status of English grammar at any definite period are statutes, curricula, and school reports. Wherever it has been possible, these sources have been utilized to determine how far school practices in any period conformed to the theories of the best educational writers and embodied the innovations of the most progressive textbooks. Incidental to these, information has been derived from town histories, reports of educational commissions, early journals of education, and such other information as may be found in miscellaneous sources, like newspaper advertisements, reminiscences, lives of schoolmasters, and histories of individual institutions.

#### **THE BEGINNINGS OF GRAMMAR, NOT OF THE VERNACULAR INSTRUCTION.**

This study has to deal primarily with English grammar in American schools. Main interest therefore centers upon the eighteenth and nineteenth centuries. Indeed, the year 1750, the date of the first important vernacular school in America to center its instruction around English grammar, is about 200 years too late at which to begin the study of the development of this branch of teaching. But the important fact to bear in mind is that this is a study of English grammar, not of the vernacular. Moreover, it is a study of English grammar in America, not in England. Therefore its treatment plunges in medias res and touches upon the vernacular before the eighteenth century and upon grammar in England only as demanded by the course of the subject in America and as directly inherited from England in theories, textbooks, and schoolroom practices.

#### **BEARING ON MODERN PROBLEMS.**

It has apparently been the fate of new branches in vernacular instruction, once introduced into American schools, to be carried to excess. Perhaps this is not true of reading and writing; but of the newer branches, spelling, which began correctly as an incidental study, became a craze in the first quarter of the nineteenth century and came to occupy an undue proportion of attention. Elaborate school instruction was supplemented by evening spelling schools and spelling matches. Webster's blue-backed speller enjoyed a sale



unrivaled in our school annals.<sup>1</sup> Fifty years after the dominance of spelling English grammar rose to its height, occupying, from 1850 to 1875, three to seven years of the secondary schools and, in addition, a prominent place in the high schools. After 1875, with the subsidence of grammar to its correct place as an incidental study, composition gained in strength, and, together with literature carefully prescribed by college entrance requirements, to-day monopolizes one-fourth of the high-school curriculum, while formal language lessons predominate in the elementary school.

The history of spelling and of grammar suggests that 50 years hence educators will be saying that in the two decades from 1900 to 1920 the school had not yet discovered that language habits are not most advantageously acquired in formal composition; that literature is a present reality, with living poets and prose writers, rather than a dusty contribution from masters who lived centuries ago. The historian of the future may smile at the excess of oral composition when carried into elaborate State declamatory contests. Indeed, in the light of the past one argument for increasing the time given to formal classes in the vernacular is at least questionable. If children can not spell, we are urged, give them more classes in spelling; if they are grammatically inaccurate, give them more grammar; if they can not write, give them more classes in composition; if they can not appreciate the pale heroes of King Arthur's court, give them Milton's minor poems and Carlyle's Essay on Burns. The very questionable logic of this argument led to excess in the time devoted to spelling and to grammar, and it has been a powerful factor in advancing composition and literature to their present status.

There can be little doubt that the period 1900 to 1920 is the heyday of formal composition and of the classics in the English curriculum, just as the date 1825 was the heyday of spelling and that of 1860 the heyday of grammar. And still the cry is that English departments are failures and their product exceedingly imperfect, and English teachers are demanding ever larger appropriations. English is more fortunate than its sister studies in being able to have the value of its product weighed every day in the practical life of its graduates. English welcomes criticism of its deficiency. English is experimenting with conversation lessons, with present-day literature; English is begging other departments to cooperate in establishing correct language habits; English is endeavoring to put oral composition on a sensible basis. Here and there a daring reformer is advocating less time for formal classes in English, their place to be taken by more general and uniform guidance in language habits. Here and there

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<sup>1</sup> "It is computed that more than 80,000,000 copies of this spelling book were sold before 1880." Evans *Am. Bibl.*, 6, 263.

school officials are even rejecting for other departments teachers whose English is slovenly, just as they reject candidates whose appearance is careless and uncleanly.

History in the teaching of the mother tongue is being made to-day. Therefore the writer feels that any light which may be thrown upon the history of any one branch of English instruction from its very beginning in America may assist modern reformers in securing a better perspective as they advance to more important innovations. The heart of the newer movements in the vernacular is well expressed by Sir Oliver Lodge: "Language should be learned in a pupil's stride—not by years of painful application." This sentiment, moreover, is the direct opposite of the spirit and aims of instruction in formal grammar in America up to 1850.

## Chapter I.

### EARLY INSTRUCTION IN THE VERNACULAR PRECEDING ENGLISH GRAMMAR.

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The history of the educational changes by which instruction in the English vernacular has been grafted upon the classical instruction of the sixteenth century involves two distinct movements. The first occurred after the Reformation; it was led by Comenius, Brinsley, Hoole, and others; it resulted in the addition of reading, writing, and spelling in the mother tongue to the curriculum of elementary schools and to the lower classes of grammar schools.<sup>8</sup> The second movement may be said to have begun in 1693 with John Locke and his immediate followers; it resulted in the addition of English grammar, composition, both oral and written, and literature to the curriculum of intermediate schools and colleges.<sup>9</sup>

While it is true that these two movements, corresponding roughly to the seventeenth and eighteenth centuries, respectively, were closely related, they were also quite distinct and involve two different conceptions of education. The seventeenth-century reform demanded the vernacular for two reasons: First, as a necessary preliminary for boys who were to continue their education in the classics; second, as suitable instruction for the masses, not destined for higher schools, but needing to read the Bible in the vernacular, according to the spirit of the Reformation.

The important consideration is that the seventeenth-century reform still regarded education in the classics as of highest worth. On the contrary, the eighteenth-century reform began where the former left off. It found the elementary branches of the vernacular established as the preliminaries of classical instruction. John Locke headed the revolt against the Latin curriculum as the sole content of secondary education. He and his followers insisted that the mother tongue itself is better suited than Latin to serve at once as the end and the vehicle of secondary education. They placed English in the curriculum not as preliminary to but as a substitute for the Latin tongue.<sup>10</sup> It was through this eighteenth-century movement that English gram-

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<sup>8</sup> See Watson, *Beginnings of Mod. Subj.*, 20, for excellent discussion of this earlier movement.

<sup>9</sup> See Chap. III, p. 55.

<sup>10</sup> Full discussion in Chap. III, p. 55.

## 5. Teaching him to read any English book perfectly.

The ordinary way to teach children to read is, after they have got some knowledge of their letters and a smattering of some syllables and words in the horn-book, to turn them into the A B C or Primar, and therein to make them name the letters, and spell the words, till by often use they can pronounce (at least) the shortest words at first sight.

For these books Hoole substitutes the Lord's Prayer, the Creed, and the Ten Commandments printed in Roman capitals. He would have the child pronounce the words he can at first sight and "What he can not, to spell them, and to go them often over, till he can tell any tittle in them either in or without the book."

Then Hoole adds reading over "Psalms, Thankesgivings, and Prayers . . . till he have them pretty well by heart." Textbooks are "The Psalter, The Psalms in Meeter, The Schoole of good manners, . . . or such like easy books"; then the Bible, beginning with Genesis. Finally have him "take liberty to exercise himself in any English book." When "he can perfectly read in any place of a book that is offered him . . . I adjudge him fit to enter into a Grammar Schoole, but not before. . . . For thus learning to read English perfectly I allow two or three years time, so that at seven or eight years of age a child may begin Latine."<sup>18</sup>

What the curriculum of the average charity school of England was about 1700 may be seen in an account of the Charity Schools of Great Britain and Ireland. Orders which were in effect in many schools were as follows:

*Pronunciation:* The Master Shall make it his chief Business to Instruct the Children . . . in the Church Catechism; which he shall first teach them to pronounce distinctly and plainly.

*Spelling:* The Master shall teach them the true spelling of Words and Distinction of Syllables, with the Points and Stops, which is necessary to true and good Reading.

*Reading:* As soon as the Boys can Read completely well, the Master shall  
*Writing:* teach them to Write a fair legible Hand.

There is presented an account of 100 such schools (1710), with 2,480 boys and 1,381 girls, which had been set up during the preceding 14 years. A common stipulation in many gifts for these schools runs "for teaching them to Read, Write, Cast Account, and Work, and for instructing them to the knowledge of the Christian Religion."<sup>19</sup>

On the basis of this examination of Coote, Brinsley, and Hoole we are able to see the nature of vernacular instruction in England in the better "petty" schools from 1569 and continuing until the eighteenth

<sup>18</sup> Bardeen, op. cit., 31-53.

Hoole adds a chapter to his "Petty Schoole" in which he points out how children for whom Latin is thought unnecessary may be employed after they have learned English. *Ibid.*, 54.

<sup>19</sup>An account of the Charity Schools of Great Britain and Ireland, 9th ed., 1710, 3-15.

century. If Hoole is correct, "the A. B. C. being now (I may say) generally thrown aside, and the ordinary Primar not printed,"<sup>20</sup> the use of these two famous educational instruments was diminishing, together with the hornbook.<sup>21</sup>

We may sum up the English practice at the time the first American colonies were established by saying that vernacular instruction consisted of elementary reading, spelling, and writing; that it retained an intensely religious purpose, involving ability to read the Bible; that it was regarded as preliminary to the study of Latin. We shall see that these characteristics were transferred bodily to the first elementary schools of America.

## 2. REASONS FOR EARLY EMPHASIS ON VERNACULAR IN AMERICA.

Two major reasons led the English colonists to stress the mother tongue in elementary instruction. As is customary, our consideration begins with the Puritan colony of Massachusetts, the character of the first settlers, their purpose in coming to America, and their major interests in the new land. Only eight years after the settlement of Massachusetts Bay that Colony established a college in Cambridge. Harvard was founded in 1636.<sup>22</sup> This highly significant act was due to the fact that a large proportion of the first settlers were thoroughly acquainted with the higher education and educational institutions of the mother country.<sup>23</sup> By 1650, within New England, there had settled at least 90 men, ministers, the leaders of Massachusetts Bay, most of whom were graduates of Oxford and Cambridge. Three-fourths of these were from Cambridge, the hotbed of revolt against Laud and established religious authority. They had been students there between the years 1600 and 1650, contemporaries of Robinson, Cromwell, and Milton. Of this number were John Cotton, John Ward, John Harvard, John Winthrop, Henry Dunster, and many others, not all clergymen. By 1650 the immigration into New England had reached 20,000 of pure English stock, and it is estimated that there was one person of higher education for every 40 families. The proportion for Massachusetts Bay was even larger than the general average for New England. This unusually large proportion of educated men were leaders of groups of immigrants, some of whom had themselves been landed proprietors in England and had enjoyed at least an elementary education in the grammar schools of the mother country.<sup>24</sup>

It was among such a people, whose actions were directed by such leaders, that an early movement for education might be expected. The colleges and the grammar schools first established were, of course,

<sup>20</sup> Bardeen, *op. cit.*, 50.

<sup>21</sup> The standard work is Tuer, *History of the Horn Book*.

<sup>22</sup> *Rec. Co. Mass. Bay*, I, 188.

<sup>23</sup> F. B. Dexter, *Influences of the English Universities in the Development of New England*, *Proc. Mass. Hist. Soc.*, 1879-1880, 340 et seq.

<sup>24</sup> See M. W. Jernegan, *The Beginnings of Pub. Ed. in N. E.*, *Sch. Rev.*, XXIII, 326.

classical. They were in response to the ideal of the leaders that the State was responsible for the education of the most promising youth in order to perpetuate an educated leadership. Colleges were to train leaders, and as the college curriculum was entirely made up of classical studies, classical grammar schools were necessary to prepare boys for college.

But the colonists of Massachusetts were actuated by another ideal which grew out of their intensely religious nature and was the very heart of the Protestant movement the world over. This idea, ardent champions of which were Luther and Erasmus, was that the mass of the people should be able to go directly to the fountain head of all religious authority—the Bible itself.<sup>25</sup> To this end the Holy Word was brought out of the Latin into the vernacular and the people taught to read. Not all the people were to be educated in grammar school and college; that was reserved for the few destined to become leaders. But the rank and file of the people themselves must be able at least to read the Bible. In Germany, England, and America this ideal was the primary moving force which led to the introduction of universal instruction in the mother tongue.

We have, then, in the desire for educated leadership and in the desire for universal acquaintance with the Scriptures two impelling forces which actuated Puritan New England in her first educational endeavors.<sup>26</sup>

Evidence on this point may be found in the first two general laws concerning education passed by the General Court of Massachusetts Bay. The act of 1642 ordered selectmen to take account of children, "especially of their ability to read & understand the principles of religion and the capital lawes of the country."<sup>27</sup> Even more strongly suggestive is the language of the law of 1647, which made compulsory both elementary and secondary education: "It being one chiefe pietie (point) of y<sup>e</sup>ould deluder, Satan, to keepe men from the knowledge of y<sup>e</sup> Scriptures, as in form<sup>r</sup> times, by keeping y<sup>m</sup> in an unknowne tongue."<sup>28</sup> This is the expression of the second ideal—that the Scriptures, in the known tongue, are to be accessible to all. "So in these latt<sup>r</sup> times, by pswading from y<sup>e</sup> use of tongues, y<sup>t</sup> so at last y<sup>e</sup>

<sup>25</sup> Luther translated the Testament in 1522; the entire Bible in 1534. Monroe, *Cyc. of Ed.*, 4, 94.

<sup>26</sup> Probably none of the other causes designated by Watson for the seventeenth-century movement for the vernacular in England were operative in America. Watson assigns, first, the growth of a national spirit after the Armada; second, the fact that England took more pride in her national independence of thought, and especially sought to give all people the ability to read the Scriptures; third, the feeling that, as the French tongue now contained the subject matter which had formerly been confined to the Latin, English might also be so utilized; fourth, the newly acquired literary possession in Spencer, Shakespeare, and Milton; and, finally, the increase of textbooks in English, beginning with the authorized prints of 1545, until "by the second half of the seventeenth century every important department of knowledge had been expounded in an English textbook." Watson, *op. cit.*, 581-5.

<sup>27</sup> Rec. Co. Mass. Bay, 11, 9.

<sup>28</sup> *Ibid.*, 203.

true sence & meaning of y<sup>e</sup> originall might be clouded by false glosses of saint seeming deceivers.”<sup>29</sup> Here is the expression of the ideal for leadership educated in Latin and Greek. Elementary education in the vernacular and secondary and higher education in the classics were provided for by colony law in Massachusetts Bay in 1647, only 19 years after the original settlement. As we have seen, the ideals and motives were primarily religious. We are safe in saying not only that the American colonists inherited from England the grammar school and the college, but that they endeavored to go beyond the mother country in teaching the vernacular. Vernacular instruction is indissolubly associated with the Reformation, out of which the first New England colonies sprang.

### 3. CHARACTER OF VERNACULAR INSTRUCTION IN AMERICA, 1620-1720.

Colonial laws of the seventeenth century indicate that vernacular instruction consisted primarily of reading and secondarily of writing. In Massachusetts Bay the law of 1642 prescribed “ability to read & understand the principles of religion;”<sup>30</sup> the law of 1647 “to write and read”;<sup>31</sup> that of 1683 “to wrighting schooles . . . in towns of five hundred families.”<sup>32</sup> Reading and writing were similarly the content of vernacular education in Connecticut,<sup>33</sup> in New Haven,<sup>34</sup> in New York,<sup>35</sup> in New Hampshire,<sup>36</sup> in Pennsylvania,<sup>37</sup> in Maryland,<sup>38</sup> and in South Carolina.<sup>39</sup>

That reading and writing were the two branches of the vernacular at first stressed in colonial schools is further borne out by examining the practice of various towns. In 1693, Dorchester, Mass., ordered a sum to be paid to Thomas Waterhouse, who “is bound to teach to read it shalbe left to his liberty in that poynt of teaching to write, only to doe what he can conveniently therein.”<sup>40</sup> Governor Winthrop, under date of 1645, writes: “Divers free schools were erected in Roxbury . . . and in Boston . . . teach to read and write and cipher. . . . Other towns did the like.”<sup>41</sup> Moreover, after the general colony

<sup>29</sup> *Ibid.* The early colony law of Connecticut, 1650, also indicates as a primary purpose of education, teaching children to read the Scriptures. *Col. Rec. Conn.*, I, 555.

<sup>30</sup> *Rec. Co. Mass. Bay*, II, 9.

<sup>31</sup> *Ibid.*, 203.

<sup>32</sup> *Ibid.*, V, 414.

<sup>33</sup> *Col. Rec. Conn.*, I, 521.

<sup>34</sup> *New Haven Col. Rec.* (1653), 65, 583.

<sup>35</sup> *Ann. of Albany*, IV, 15, 16.

<sup>36</sup> Bouton, *Prov. Papers of N. H.*, III (1692-1722), 718.

<sup>37</sup> Clews, *op. cit.*, 281 and *Pa. Col. Rec.*, I, 91.

<sup>38</sup> Steiner, *Hist. of Ed. in Maryland*, 19; and Clews, *op. cit.*, 416.

<sup>39</sup> *Ibid.*, 457.

<sup>40</sup> Orcott, *Nar. Hist. Good Old Dorchester*, 292.

<sup>41</sup> Winthrop, *Hist. of N. E.*, Savage, II, 264.

laws of Massachusetts Bay and Connecticut prescribed reading and writing, in 1647 and 1650, respectively, towns began to comply. For example, in Watertown, 1650, "Norcroffe was Chosen Schoole Master, for the teaching of Children to Reed to write & soe much of Lattin as . . . also y<sup>e</sup> teace such as desire to Cast accompt."<sup>42</sup> Records indicate that other towns employed teachers to teach reading and writing.<sup>43</sup> It appears, therefore, that the English teaching of this period was exceedingly elementary. Reading was common in all schools; writing was considered worthy of more advanced teaching in some towns, but usually accompanied reading, taught by the same master; casting accounts and arithmetic began to appear toward the end of the century and were usually classed with the English branches.

In addition to the public schools so far considered, there were many private schools, in one order of which—the "dame" schools—"primary instruction in the mother tongue was the acknowledged purpose. For example, in Malden, Mass., Rebecca Parker kept such a school for several years."<sup>44</sup> Salem voted £15 to "Widow Catherine Dealland," in 1712, for teaching school among them.<sup>45</sup> One other typical example will suffice. In Hartford, Conn.,

there were in those times private schools of a lower grade. At least one such school was kept in Hartford, that of Widow Betts, "Goody Betts, the School Dame," who died in 1647. Her pupils were young children, whom she taught the simple lessons of the hornbook."<sup>46</sup>

In short, Judd, in his history of Hadley, sums up the general practice when he says:

There were many cheap private schools . . . in the seventeenth and eighteenth centuries, kept by "dames" . . . where girls were instructed to read and sew, and in some small boys were taught to read . . . . Writing was considered far less important . . . . Probably not one woman in a dozen could write her name 150 years ago.<sup>47</sup>

The instruction in these dame schools, which persisted well down into the nineteenth century,<sup>48</sup> consisted of the simplest elements of the vernacular. The textbooks have been described so often that a mere mention here will suffice. Books chiefly employed were the *A B C*,<sup>49</sup> the *Horn Book*,<sup>51</sup> the *New England Primer*,<sup>52</sup> the *Bible*,<sup>53</sup>

<sup>42</sup> Watertown Rec., I, 21.

<sup>43</sup> Rec. Town of Dedham, III, 213; *ibid.*, IV, 3; Rec. Town Plymouth, I, 116; Currier, *Hist. Newbury*, 396 (quotes town record); Nash, *Hist. Sketch Weymouth*, 126; Corey, *Hist. Malden*, 603; Felt, *op. cit.*, 439; Bailey, *Hist. Andover*, 519; Bicknell, *Hist. Barrington*, 524.

<sup>44</sup> See discussion in Updegraff, *Orig. Mov. Sch. in Mass.*, 136-49.

<sup>45</sup> Corey, *op. cit.*, 439.

<sup>46</sup> Felt, *op. cit.*, I, 442; see also *ibid.*, 445, 9, 50.

<sup>47</sup> Love, *Col. Hist. Hartford*, 254.

<sup>48</sup> Judd, *Hist. of Hadley*, 56.

<sup>49</sup> They continued in Boston at least until 1819, when free primary schools were established. W. B. Fowle, *Barnard, Ed. Blog.*, 129.

<sup>50</sup> See Eggleston, *Transit of Civilization*, 211.

<sup>51</sup> Tuer, *History of Horn Book*.

<sup>52</sup> Ford, *The New England Primer*.

<sup>53</sup> Felt, *Annals of Salem*, I, 437.



Catechisms,<sup>54</sup> and the Psalters.<sup>55</sup> We find, then, that before the appearance of the higher branches of the mother tongue the colonies had provided instruction generally in reading and writing. At first there was little spelling as such, what there was being incidental to reading. Spelling is the logical outcome of the A B C method of learning to read, proceeding from the individual letters to syllables of two letters, then to easy words, and so forward. Littlefield refers to spelling books printed by Stephen Day, in Cambridge, Mass., as early as 1645,<sup>56</sup> and asserts that Coote's School Master was extensively used in New England.<sup>57</sup> Other spellers intervened, but not until 1740 and after, when "Dilworth's New Guide to the English Tongue" was published in London, imported, and reprinted in America in enormous quantities,<sup>58</sup> could formal exercises in spelling be said to have become universal.

The first book printed in America which attained wide popularity was the New England Primer, which was first published in the decade 1680-1690.<sup>59</sup> Ford estimates the total sale of this book at 3,000,000 copies between 1690 and 1840. One firm, Franklin & Hall, of Philadelphia, sold 37,000 copies between 1749 and 1766.<sup>60</sup> But the wide sale of the New England Primer did not begin until after 1690; before that time the colony schools had to depend very largely upon books imported from England. Bibles<sup>61</sup> were the universal reading books in the early American schools, convenient textbooks because they were found in almost every home, logical textbooks because knowledge of religion was legally prescribed. For the very earliest instruction in the dame schools, A B C books, hornbooks, and psalters preceded the Testament and Bible. In short, the procedure described by John Locke—"the ordinary road of the Horn Book, Primer,

<sup>54</sup> Littlefield, *Sch. and Sch. Books*, 105.

<sup>55</sup> An excellent description of the Primer, the Horn Book, and the Psalter as used in the schools of Salem before 1791 is found in Felt, *op. cit.*, I, 436-7. Isaac Parker, who was one of Dame Rebecca Parker's pupils in Malden, 1786, said that the only book he had was a Psalter, and that he had only a little reading and spelling. Corey, *op. cit.*, 648.

<sup>56</sup> Littlefield, *op. cit.*, 118.

<sup>57</sup> *Ibid.*, 119.

<sup>58</sup> See Chap. II, p. 34.

<sup>59</sup> Paul Leicester Ford, the historian of the New England Primer, attributed the first edition to Benjamin Harris, printer, between the years 1687-1690, the exact date unknown. Ford, *op. cit.*, 16. Worthington C. Ford has recently found evidence of an earlier New England Primer printed by John Gaine, London, entered in the Stationers Register, under date Oct. 5, 1683. *The Nation*, Jan. 11, 1917, 46.

<sup>60</sup> P. L. Ford, *op. cit.*, 19.

<sup>61</sup> "The Bible and Psalter and the New England Primer were the only reading books" (before 1770). Burton, *Hist. of Ed. in N. H.*, 1842, 585. The Bible was used for the senior class, John Thelwell's school, Wilmington, Del., before 1775. Powell, *Hist. of Ed. in Del.*, 42. "Bible and Catechism for more than a century after settlement of Newbury were the only reading books used in school." (1634-1734.) Carrier, *Hist. Newbury*, 408.

Psalter, Testament, and Bible"—was the common practice<sup>62</sup> in America, as in England. Many towns prescribed for their schools Latin masters and either ushers or English masters, together with writing masters or scribes.<sup>63</sup> The town school received pupils after they had learned the first elements in dame schools, and, in the absence of the latter, themselves gave elementary instruction in reading, writing, and casting accounts. Such a school, for example, was set up in Hartford, Conn., in 1755. "This society judge necessary that Exclusive of the Grammar School there be . . . two other schools sett up and supported for an English Education only . . . for Reading, Writing and Arithmetic."<sup>64</sup>

Naturally we should not expect to find grammar and composition as distinct studies in this early period, when instruction in the vernacular had, for its primary purpose preparing children for the grammar schools and for its secondary purpose teaching them to read the Scriptures, with ability to write even more subordinated, and spelling largely, if not entirely, incidental. How English grammar was grafted upon these more elementary branches is the main subject of the succeeding chapter. When the Latin-grammar school was proved to be ill suited to the majority of pupils and when the demand increased for a type of secondary education to supplant the Latin, English grammar came naturally to the fore. Instruction in vernacular grammar could be imparted by exactly the same methods used in the teaching of Latin grammar. The passing of Latin grammar is contemporaneous with the rise of vernacular grammar. The older order—reading, writing, spelling, and Latin grammar—now became reading, writing, spelling, English grammar, all in the mother tongue. Such a procedure would bear out Eggleston's unsupported assertion that "by slow degrees it came to pass that the English studies at last drove the sacred Latin from the free school founded at first for it alone."<sup>65</sup>

<sup>62</sup> Locke, *Thoughts Conc. Education*, Quick, 134. See excellent account of such books used in Connecticut schools. "The early schoolbooks of New England were the same as those of Old England. The same books . . . were used in Hadley and other towns. Such books were sold by John Pyncheon, of Springfield, from 1656 to 1672 and after, and by Joseph Howley, of Northampton, to his scholars, except hornbooks, from 1674 to 1680, and both sold many Catechisms; . . . neither sold spelling books. . . . They were but little used in the seventeenth century. Samuel Porter, of Hadley, who died in 1722, sold Primers, Psalters, Testaments, and Bibles; also Catechisms, Psalm Books, and Spelling books, chiefly Dillworth's, were not common on the Connecticut River until after 1750." Judd, *op. cit.*, 61.

In 1805 H. K. Oliver was placed at 5 years of age in the Boston school of Mr. Hayslop. "By him I was taught my A B C D E F, my ab, nbs, and my eb, ebs." Later young Oliver learned elementary reading and spelling in the school of Dame Tileson. *Barnard's Am. J. of Ed.*, XXVI, 210.

<sup>63</sup> Usher provided for John Douglas (1710), master of the grammar school in Charleston, to teach reading, writing, and arithmetic. *Clews, op. cit.*, 457.

Thomas Makin (Meakins) appears to have kept a "free school in the town of Philadelphia" (1693). Makin was afterwards the usher or assistant of George Keith, the first teacher of the William Penn Charter School, 1687. *Wickersham, Hist. of Ed. in Pa.*, 41-43.

<sup>64</sup> *Col. Rec.*, II. Love, *Col. Hist. Hartford*, I, 153.

<sup>65</sup> Eggleston, *op. cit.*, 236.

## Chapter II.

### EARLY APPEARANCES OF ENGLISH GRAMMAR IN AMERICA.

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In Chapter I has been discussed the background of vernacular teaching in the American colonies, to which was added during the eighteenth century the formal study of English grammar. The present chapter will seek to establish the facts that a few schools attempted English grammar as such before 1750; that between 1750 and 1760, in the middle colonies at least, considerable headway in the subject was made in private schools; that after 1760 private schools of both the northern and southern colonies fell into line; that by 1775 English grammar was taught with some frequency in many private schools throughout the country.

#### 1. SCHOOLS AND SCHOOLMASTERS TEACHING ENGLISH GRAMMAR BEFORE 1775.

In this section is gathered from various sources, especially from newspaper advertisements,<sup>66</sup> evidence of instruction in grammar before 1775. This chapter demonstrates that Noah Webster's often-quoted affirmation that "English grammar was not generally taught in common schools" before the Revolution<sup>67</sup> has been misinterpreted. Webster was right in saying that few common schools gave instruction in English grammar before 1775, but the inference usually drawn from his statement that grammar was not taught at all is misleading. The number of private schools which taught the subject increased rapidly after 1750. Webster evidently was acquainted with the school practices of the New England colonies, which are shown in this chapter apparently to have lagged behind the middle colonies, and somewhat behind the southern, in bringing to the fore instruction in all secondary branches of English, especially grammar.

In the New Jersey series the newspapers cited begin with 1704 and end with 1779. Not all schools which were giving instruction in grammar before the Revolution are here indicated. Colonial newspapers

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<sup>66</sup> Much of the data from colonial newspapers on private schools cited in this section was made available through the courtesy of Prof. Marcus W. Jernegan, of the University of Chicago. His extracts have been supplemented from the series of excerpts from colonial newspapers relating to New Jersey, as published in the New Jersey Archives, and from sundry other sources, to which reference is made in the course of the discussion. However, no pretense is made that all of the data extant in such sources has been used.

<sup>67</sup> Am. J. of Ed., XXVI, 196.

are preserved in fragmentary form at best. Moreover, the data relate almost exclusively to private schools, many of which may not have advertised; they offer little or no bearing upon the curricula of free public schools of the eighteenth century. The writer has seen very little evidence that public schools were offering English grammar before 1775.<sup>68</sup> In all likelihood they were to some extent, but no proof to that effect has come to the writer's attention. No English grammar was offered in the public schools of Boston before 1775.<sup>69</sup>

In footnotes are presented data from various colonies. Information is distributed as follows: Date of the school advertisement, name of the schoolmaster, extracts (quoted verbatim from the advertisements) indicating instruction in grammar and, finally, the reference to the newspaper in which the advertisement was published. It was customary for a successful schoolmaster, like Hugh Hughes, 1767, and Thomas Byerley, contemporary, both of New York, to advertise in various papers in succeeding years. With a few exceptions a schoolmaster's name appears but once in the lists below. In some cases, like that of David Dove, the same schoolmaster taught in several different schools in successive periods of service.

One caution should be borne in mind. There is no positive evidence that many of the schools advertised actually convened. Frequently a schoolmaster "prepares to open a school if given sufficient encouragement," meaning if he secured enough pupils to make the project pay. Moreover, it is quite likely that, as with some schools to-day, the prospectus of a curriculum for advertising purposes was somewhat more pretentious than the actual school practices warranted.

The schools here cited are, with very few exceptions, located in cities of importance, and schoolmasters in smaller places, in plantation schools, and in villages throughout each colony could not, or did not, advertise. Hence, schools of smaller communities may have been teaching grammar of which there is no record. This may be true, although a number of the schools cited in the list below were in small communities. Effort here is merely to cite available data upon which to base a reasonably sound inference as to when English grammar made its first appearances. Undoubtedly it was a new subject, presented in very few textbooks, as no American texts in grammar were published in the colonies before Samuel Johnson, of New York, in 1765,<sup>70</sup> and none of the grammars from England were reprinted in America until Dilworth's, in 1747. That few English grammars were imported before 1750 is likewise almost certain.<sup>71</sup> Now the

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<sup>68</sup> Except in free school in Maryland. See Chap. 11, p. 30.

<sup>69</sup> See discussion of Joseph Ward's school, Chap. 11, p. 34.

<sup>70</sup> See Chap. 11, p. 33.

<sup>71</sup> See Chap. 11, p. 33.

newness of the subject, the abject ignorance of the village schoolmasters, and the general absence of textbooks<sup>12</sup> make it appear likely that English grammar did not generally make its way into the public schools until some time after it was taught in the more prosperous private schools of the cities. Upon this basis, then, coupled with the fact that private schools capable of undertaking grammar established themselves usually in cities, credence may be placed in the conclusions reached in the following discussion.

It may be pointed out also that scrupulous care has been taken to select from the advertisements of more than 500 schools only those in which it is reasonably certain that a deliberate attempt was made to "teach the English language grammatically." A large number of schools which may have taught grammar were rejected.<sup>13</sup>

Moreover, if the term "grammar" appears in the advertisement, with no certain indication that it signifies English, the assumption has been made that it means Latin grammar. Where English branches are announced as the core of the curriculum, with no specific mention of grammar, they have also been rejected.

#### NEW ENGLAND.

The writer has seen only six references to New England schools which give positive evidence of teaching English grammar before 1775.<sup>14</sup> It is surprising to find such meager evidence of instruction

<sup>12</sup> See Chap. II, p. 33.

<sup>13</sup> A typical rejected case is William Cheatom's school in Burlington, N. J., where, in 1763, he taught "Latin, French, English, Writing and Arithmetic." *Maryland Gazette*, July 11, 1763. If Cheatom had meant reading, writing, and spelling in the English part of his curriculum, he probably would have said so. Large numbers of advertisements use these terms for English branches.

Reliable evidence that the term "English" in some advertisements, at least, included grammatical treatment is found in the fact that Franklin's Academy, in which it is certain that grammatical instruction was given (see Chap. III, p. 44), announces only "Wherein youth shall be taught the Latin, Greek, English, French, and German languages." *Pt. G.*, Dec. 11, 1750.

Furthermore, schools and schoolmasters' advertising as "capable of teaching grammar," "giving instruction in grammar," "giving instruction in the English language," and the like, have been rejected. *Md. G.*, Aug. 20, 1752; *ibid.*, Dec. 13, 1764.

<sup>14</sup> 1766, John Griffith, Boston, "Continues to teach English Grammar." *Boston Gazette*, Sept. 20, also *Boston Post Boy*, Sept. 22.

1766, Richard Pateshall, Boston, "English with propriety according to the Rules of Grammar." *B. G.*, Sept. 15; *ibid.*, Sept. 28.

1769, Joseph Ward, Boston, "Understanding the English Grammar." *Boston Chronicle*, Apr. 20. "The last two years of my school life (between 1765 and 1770), nobody taught English grammar (in Boston) but Col. Ward, who was self-taught, and set up a school in Boston; our class studied Lowth in college." *Memorandum of an Eminent Clergyman*, C. S. J. (1850), 311.

1771, Theodore Foster, Providence, R. I., "English Grammar by Rule." *Providence Gazette*, June 8.

1772, Joseph Ward, Boston, "English Grammar School is now Open." "Those who incline to learn the English Grammar." *B. G.*, Oct. 25.

1773, Wm. Payne, Boston, "English Grammar." *Ibid.*, Nov. 14.

Felt, writing in 1842 of education in Salem, Mass., gives a list of textbooks whose "use appears to have commenced here and in other towns of Massachusetts . . . about the

in grammar in Boston. There may have been other schools teaching grammar during this period, but the internal evidence of the statements of Pateshall and Ward leads to the belief that few, if any, were doing so.

Three successive advertisements show that Pateshall was transforming his school so as to provide a new curriculum in English. In 1754 he taught "Writing, Arithmetic and the English and Latin Tongues."<sup>75</sup> This is a typical private grammar school of the period, according to the interpretation we have followed, and indicates that no grammar was taught. In 1761 Pateshall gives "Public Notice" of a school "teaching reading and spelling English with propriety, and the Rudiments of the Latin Tongue."<sup>76</sup> This indicates that his school was turning more extensively to English; "with propriety" is a phrase commonly used in association with teaching grammar. And in 1766 Pateshall's school is announced "where he will teach Writing and Arithmetic, the Latin Tongue, Reading and Spelling English with Propriety, according to the Rules of Grammar."<sup>77</sup> Therefore during the 12 years covered by these advertisements (1754-1766) this private school was transformed by laying emphasis upon English. The third advertisement, in 1766, clearly indicates that the school offered instruction in grammar.

Ward's announcements throw light on the absence of grammatical instruction in English. In 1769 he announces an—

English Grammar School . . . where he teaches Reading, Spelling, Writing, Arithmetic, The English Grammar. . . . Those who go to the Free Schools and incline to learn the English Grammar he will teach from 11 to 12 o'clock. . . . The Understanding the English Grammar is so necessary for those who have not a liberal education. . . . Such a school is said by the Literati to be very much wanted in this town."

The foregoing is one of the earliest uses of the name "English grammar school," and the rest of Ward's statement indicates that the term is used because of the emphasis on English grammar, the title being derived in an exactly analogous way to the term "Latin grammar school." Here, too, is evidence that the free schools of Boston did not include English grammar in their curricula and evidence, though somewhat less positive, that private schools did not generally teach the subject. Ward evidently does not think that Richard Pateshall

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particular years which accompany them. The reference of them as to time and place is more vague than desired. But want of data . . . forbid it to be otherwise. Spelling books, Dillworth's 1750; English grammar, Salmon's, Lilly's, 1761. British grammar, printed in Boston 1784, Lowth's, Ash's, Webster's, 1785." *Ann. of Salem*, 385-6.

This is the type of reference so vague as to be of no value for our purposes. The writer has seen no other reference to an English grammar by Salmon. Lilly's was not an English grammar. This and many similar references are discarded as worthless.

<sup>75</sup> Boston News Letter, Dec. 28, 1754.

<sup>76</sup> *Ibid.*, May 14, 1761.

<sup>77</sup> B. G., Sept. 15, 1766.

<sup>78</sup> B. Chron., Apr. 20, 1769.

(1766) was conducting a school of which the "Literati" approved. Private-school men appear to have often been skeptical of the pretensions of rival schoolmasters.

The announcement of John Griffith, the first evidence available of the time when grammar was introduced in Boston, is highly suggestive of the conclusion we must reach. He affirms, in 1766, that he "continues to teach English Grammar." How long before that date he had carried out this part of his program is uncertain. However, from the discussion of successive advertisements of Pateshall and Ward, considered above, it is concluded that they began their work in grammar soon after 1766.

The conclusion reached, then, is somewhat qualified. In New England a few private schools began to emphasize English grammar in their curricula about the year 1765, one decade before the Revolution. John Griffith, Richard Pateshall, and Joseph Ward were leaders in this movement among the schoolmen of Boston.

#### NEW YORK.

According to the evidence available upon the numerous attempts to teach declamation, oratory, and grammar, the middle colonies show a much more marked tendency to stress English than did New England. New York, New Jersey, and Pennsylvania seem to have been at least a decade in advance of their sister colonies to the north. The evidence of schools "teaching English Grammatically" in these three colonies includes 39. In New York at least 12 schools, the first somewhat doubtful, were teaching grammar before 1775.<sup>19</sup>

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<sup>19</sup> 1751, Garrett Noel, New York, "Reading, writing, arithmetic, grammar." New York Gazette revived in the Weekly Post Boy, Sept. 2.

1753, John Lewis, New York, "Speaking, reading, spelling and writing English according to English Grammar." Ibid., June 4.

1761, Elizabeth Wilcocks, New York, "With the Whole English Grammar." New York Mercury, Aug. 31.

1761, W. Rudge, Newtown, "Writing, Arith., Grammar, Bookkeeping." Ibid., June 15.

1763, Wm. Jones, New York, "English Language by Grammatical Rules." Ibid., Apr. 25.

1763, Sam. Giles, New York, "Desire to Learn the English Grammar and write their Mother Tongue." N. Y. M. and W. P. B., Apr. 21.

1766, ———, New York, "The English Grammar Rationally taught." Ibid., June 5.

1771, Thomas Ulrich, New York, "English Language Grammatically." N. Y. G. and W. M., Dec. 31.

1771, Hugh Hughes, New York, "English Language Grammatically." Ibid., Dec. 30.

1773, Thomas Byerley, New York, "Scholars interested in the grammatical institutes." Ibid., Aug. 23.

1774, John Cobb, New York, "English Grammar." N. Y. J. or Gen. Ad., June 1.

1775, John Cobb, Flatbush, "Principles of English Grammar," N. Y. G. and W. M., July 4.

Kemp, speaking of English grammar in the charity schools of the city of New York, says: "Mr. Ball added English grammar to the program . . . when he succeeded Mr. Hildreth. . . . It is the only instance of it to be found save the special instruction in it which Forster introduced for a while." Sup. Sch. in Col. N. Y., by S. P. G., 265. Hildreth retired in 1777. Ibid., 115. Forster was master in West Chester Parish from 1717 to 1745. Ibid., 153. If it is true that the latter was giving special instruction in English grammar before 1745, he deserves to be classed as one of the very earliest in America.

Noel's case is cited as doubtful because it does not specifically indicate instruction in grammar. The remainder of his announcement indicates an elementary program with no mention of Latin; this seems to suggest that the "grammar" of his advertisement means English grammar. The first undoubted case is Lewis's school, opened in 1753 for "speaking, reading, spelling and writing English according to English Grammar."<sup>80</sup>

## NEW JERSEY.

In the New Jersey series between 1704 and 1750 there appear to be only six references to schools, all of which are advertisements for teachers. Three of these indicate that the subject matter the master is desired to teach is the elementary curriculum of the ordinary town school, namely, reading, writing, arithmetic, ciphering, spelling, and good behavior. References to 12 schools teaching grammar appear after 1850.<sup>81</sup>

Two schools, 1751 and 1753, while they do not specify English grammar, point strongly in that direction. Bartholemew Rowley, of Burlington, "Professes to teach the Latin and English Grammar."<sup>82</sup> Probably this refers to a Latin grammar, with accidence explained in English, after the order of Lily's or Adam's grammar.<sup>83</sup> Nevertheless, the very fact that Latin is so advertised indicates a tendency toward the grammar of the vernacular.

In 1753 a lottery for an "English and Grammar-school" is promoted in Trenton "for raising 225 pieces of eight toward building a house to accommodate an English and grammar-school and paying a master."<sup>84</sup> To be noted here is the slight distinction between an English curriculum and a grammar curriculum in the same school.

<sup>80</sup> N. Y. G. Rev. in W. P. B., June 4, 1753.

<sup>81</sup> 1751, Bartholemew Rowley, Burlington, "Latin and English Grammar." Pa. G., Sept. 19; also Sept. 26.

1753, ———, Trenton, "English and Grammar-school." Ibid., Apr. 26.

1762, Cather Robert, Elizabeth Town, "English Tongue Taught as a Language." Pa. J., Apr. 1, also N. Y. M., Jan. 18.

1763, S. Finley, Princeton, "English Language Grammatically." Ibid., Nov. 10.

1764, John Reid, Trenton, "English Grammar, Reading, Grammatically." Pa. G., Sept. 13.

1764, ———, Moores Town, "Wanted a schoolmaster to teach the English language grammatically." Ibid., Aug. 3.

1764, Joseph Periam, Princetown, "English Language grammatically." Pa. J., May 31.

1769, J. Witherspoon, Princeton, "Remarks on the grammar and spelling of the English Tongue." Ibid., Mar. 2.

1769, Princeton College, Princeton, "Scholars desiring admission should be well acquainted with Reading English with propriety, spelling the English language, and writing it without grammatical errors." N. Y. J. and W. M., May 1.

1771, Grammar School, Queen's College, "Mr. Frederick Frelinghousen . . . teach the English Language grammatically." N. Y. J. or Gen. Ad., Oct. 24.

1771, James Conn, Elizabeth Town, "Teach English Grammar." N. Y. G. or W. P. B., Oct. 21.

1775, Newark Academy, Newark, "English Language." N. Y. G. and W. M., Mar. 27.

<sup>82</sup> Pa. G., Sept. 19, 1751; N. J. Arc., XIX, 99.

<sup>83</sup> See Appendix B.

<sup>84</sup> Pa. G., Apr. 26, 1753; N. J. Arc., XIX, 245.



The step to an English-grammar school is easy and natural and throws light upon the shifting of emphasis from the Latin grammar to English grammar in the last quarter of the century.

Not until 1762, when Robert Cather, of Elizabeth Town, East New Jersey, opened a boarding school, do we have an undoubted case in point. Cather speaks in no doubtful terms:

As also, Boys to be instructed in the Beauty and Propriety of the English Tongue, which shall be taught as a Language; the best English Authors shall be read & explain'd; the Art Rhetoric or Oratory, shall be taught with Care and Exactness; Specimens of the Boys' Proficiency therein shall be given every Quarter. . . . It's hoped the undertaking will meet with due encouragement especially from such who know the importance of a Proper English Education.<sup>86</sup>

Significant is the fact that S. Finley, president of the college in Princeton, is second on the list, announcing that in the English school connected with the college "is proposed to be taught the English Language grammatically, and that Boys, when found capable, be exercised in Compositions, as well as in pronouncing Orations publically."<sup>86</sup> The teacher in this academy was Joseph Periam, a young graduate of the college, who, at the commencement of 1762, "to relax the attention of the audience," delivered "an English Oration on Politeness, which gave universal satisfaction for the justness of the sentiments, the elegance of the composition, and the propriety with which it was delivered."<sup>87</sup>

Here is an eighteenth-century college, whose curriculum was very largely classical, announcing an English school with English grammar as its central study. The academy is "An Appendage" of New Jersey College, according to the announcement. This fact makes it unlikely that the academy was a private venture. We are led to conclude that the president, for popularity in advertising,<sup>88</sup> stresses English. The Philadelphia Academy, afterward the University of Pennsylvania, a near rival, was doing so very successfully in this decade.<sup>89</sup>

The Moores Town advertisement, in 1764, throws an amusing light upon the relative place of the vernacular and the classics. The advertisement reads: "Wanted, a schoolmaster, to teach the English language grammatically, write a genteel hand, Arithmetic, and the useful branches of Mathematics"; then it adds, "and if he could teach the Latin, it would be more agreeable to some of his Employers. . . ."<sup>90</sup>

<sup>86</sup> Pa. J., Apr. 1, 1762; N. J. Arc., XXIV, 21; also N. Y. M., Jan. 18, 1762.

This much resembles the plan of Franklin's English Academy, 1750, and is cited in a later chapter as evidence of the supreme influence of Franklin's experiment with the English curriculum. See Chap. III, p. 44.

<sup>87</sup> Ibid., Nov. 10, 1763, N. J. Arc., XXIV, 266.

<sup>88</sup> Pa. G., Oct. 21, 1762. Quoted, MacLean, Hist. of Col. of N. J., I, 154.

<sup>89</sup> In 1762 the profits from the grammar school connected with the college were added to President Finley's salary. This, and the presence of young Periam, may have been the cause of the new emphasis on English. MacLean, op. cit., 355.

<sup>90</sup> See Chap. III, p. 46.

<sup>91</sup> Pa. G., Aug. 2, 1764.

Evidently a minority of this Moores Town committee still clung to the Latin, but the majority, making courteous allusions to their colleagues, insist upon the primary importance of the mother tongue, with English grammar as the basis.

Differences of opinion in regard to the new subject did not trouble the school committees alone. That the school officers often reflected the conflicting opinions of school constituents is evidenced by resolutions of the Germantown (Pa.) Union (English) School, March 3, 1764. Dove, formerly of Philadelphia Academy, was master.

Whether the Mode of instruction generally should be taught Grammatically, attended with lectures. . . . The Board having deliberated . . . Resolved, That the instructions of the youth in the Languages Grammatically, and with Suitable lectures at the same time . . . will undoubtedly tend to the most effectual Advancement of the Knowledge of the Scholars. . . . But the Board is nevertheless of the opinion, that every parent and guardian should have in his election to direct whether his child or ward shall be taught in the above manner, or in the usual mode taught in common schools. . . . Many parents and guardians may not incline to have their children or wards taught in any other manner than what has been hitherto practiced in this school. The . . . English Master . . . shall be obliged himself to hear each scholar three times a week, who is taught reading, writing and arithmetic, in the said common mode.<sup>81</sup>

The suggestion is that Dove's new "English Language Grammatically" methods were not entirely popular. This resolution is also indicative of what "the usual mode in the school" was. The school committee orders that the English master shall "hear" the scholar; that is, hear him recite the lessons which he has memorized from the textbook.

In many of these eighteenth-century communities with their highly emphasized democracy this dual struggle among school patrons may have taken place. In Moores Town part of the public clung tenaciously to the Latin and the old curriculum; in Germantown part of the school patrons fought innovations in methods of teaching. Thus did "the road their fathers trod" diverge from the path of progress. Against just such traditionalism, in practically every colony, did instruction in the mother tongue have to fight its way.<sup>82</sup>

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<sup>81</sup> Travis, Germantown Academy, 24-25.

<sup>82</sup> An advertisement of an Elizabeth Town school, in 1709, shows that a writing master used what is almost the modern method of teaching composition. To be sure, the emphasis is still on writing and spelling. However, the original compositions of the upper class are to be reviewed and errors pointed out. In many of the advertisements cited in this thesis some form of composition is added to the teaching of grammar.

The teacher is the same Joseph Perlam whom we saw above as the first teacher in the English school of Princeton college. He is now resigning to take this school.

"As this gentleman is skilled in penmanship, a particular attention will be paid, if desired by the parents . . . pupils according to their capacities. . . . Some in writing the usual copies; others in transcribing . . . from approved authors, either letters to acquire a taste for the epistolary style or select pieces to be committed to memory, which they will be taught to pronounce with grace and propriety. Those of riper judgments will be required to write their own thoughts in the form of letters, descriptions, &c. These transcripts and letters will be carefully reviewed and errors pointed out in such a manner as will be most likely to make them accurate in writing and spelling." N. Y. G. and W. M., July 24, 1769; N. J. Arc., XXVI, 474. It will be noted that Franklin also insists upon careful criticism of the pupils by the English master. See Chap. III, p. 44.

## PENNSYLVANIA.

Pennsylvania appears to stand ahead of all her sister colonies in championing thorough instruction in the mother tongue. The reasons for this, under Franklin's leadership, are discussed elsewhere.<sup>93</sup> In 1743, at least 20 years earlier than any record found of English grammar in Massachusetts and 10 years before any in New Jersey, one Charles Fortesque announced:

To be taught by Charles Fortesque, late Free-School Master of Chester, at his home, in the alley commonly called Mr. Taylor; the latin Tongue, English in a grammatical manner, navigation, surveying, mensuration, geography," etc.<sup>94</sup>

This school of Fortesque's, with one other,<sup>95</sup> are the only undoubted cases the writer has seen of attempts formally to teach English grammar in America before 1750.

Next on the list is Franklin's English Academy, Philadelphia.<sup>96</sup> For reasons elaborated in the succeeding chapter the evidence seems to show that Franklin's Academy, because of its prominence, may be said to mark the beginning of formal instruction in English grammar in American schools. Due appreciation of the priority of Waterland and Fortesque in obscure schools is here acknowledged.

Of great significance is the fact that at least eight schools in Philadelphia were teaching, or had been teaching, grammar before 1760,<sup>97</sup> and 13 schools before 1766, when we are positive that Griffith and Pateshall were teaching in Boston. Philadelphia had at least 12

<sup>93</sup> See Chap. III, p. 43.

<sup>94</sup> Pa. G., Dec. 1, 1743.

<sup>95</sup> William Waterland, Wassamacaw, S. C., 1734, see p. 31.

<sup>96</sup> Pa. G., Dec. 2, 1750, quoted in Montgomery, Hist. of U. of P., 189.

<sup>97</sup> 1743, Charles Fortesque, Philadelphia, "English in a Grammatical Manner." Pa. G., Dec. 1.

1750, Franklin Academy, Philadelphia, "English Language." Ibid., Dec. 2.

1751, Gabriel Nesman, Philadelphia, "English by daily practice, after the choicest and correct grammars." Ibid., Jan. 1.

1751, David Dove, Philadelphia, "English Grammar." Ibid., Aug. 29.

1754, John Jones, Philadelphia, "English as a Language." Ibid., Oct. 24.

1755, Robert Coe, Philadelphia, "Teaches reading grammatically." Ibid., Apr. 24.

1758, Messrs. Dove and Riley, Philadelphia, "English Language, according to the most exact Rules of Grammar." Ibid., Jan. 12.

1759, Dove and Williams, Philadelphia, "Grammatical knowledge of their mother tongue as it is laid down in Greenwood's English Grammar." Ibid., Aug. 9.

1761, Joseph Garner, Philadelphia, "English Grammatically, according to the most modern and familiar Method." Ibid., July 3.

1764, Subscriber, Philadelphia, "the Reading, Speaking, etc., will be taught grammatically." Ibid., Sept. 1.

1761, David Dove, Germantown, "English as a Language." Ibid., Nov. 19.

1765, Alexander Power, Philadelphia, "English Grammatically." Ibid., June 13.

1766, John Downey, Philadelphia, "English Tongue grammatically." Ibid., June 5.

1767, Mary M'Allister, Philadelphia, "English Language with proper Accent and Emphasis." Ibid., June 4.

1767, Mr. Dove, Philadelphia, "Own Language according to the exact Rules of grammar." Ibid., Oct. 29.

1769, Henry Moore, Potts Town, "English Language grammatically." Ibid., Sept. 28.

1767, Lazarus Pine, Philadelphia, "English Language Grammatically." Ibid., Jan. 29.

1772, John Hefferman, Philadelphia, "Grammatical English." Ibid., Sept. 14.

schools teaching grammar before the first authentic case we have seen in Massachusetts and 11 before the first case found in New Jersey. In comparison with the South we shall see that Pennsylvania schools, with two exceptions, appear to antedate them in adding grammar. These exceptions are William Waterland's school in Wassamacaw, S. C., and the doubtful instance of William Gough's plantation school in the same colony. These exceptions indicate that there were in the southern colonies, and probably in all, schools teaching grammar which are not here recorded.

#### MARYLAND.

In Maryland the first record we have seen—the announcement of William Clajon<sup>98</sup>—has considerable interest. Clajon was a Frenchman who had immigrated in 1754 and under the patronage of a prominent clergyman in Annapolis began teaching French, Latin, and English in that year.<sup>99</sup> He paid little attention to English grammar. At least he did not at first advertise it. But three years later, when he may be supposed to have become fairly well established in his profession, he announces:

The subscriber having by great application acquired a reasonable knowledge of the English Grammar, he proposes to teach the same at the Free School of Annapolis. Those Parents, who can not afford their children spending several years in the Learning of Greek and Latin, may, by this proposal, procure to them the only benefit commonly expected from these languages, THE LEARNING OF THEIR OWN. Besides their daughters can as easily enjoy the same advantage.<sup>100</sup>

Can it be that Clajon had read the signs of the times as pointing to an English education and had during his three years' residence in America prepared himself to teach the English grammar?<sup>1</sup> At any rate he voices the argument which, after Franklin's proposals for an English school, seems to have seized firm hold upon an increasing proportion of the constituency of the schools—Latin of no practical benefit; English a suitable substitute.<sup>2</sup>

<sup>98</sup> 1757, William Clajon, Annapolis, "Knowledge of English Grammar. . . . The Learning of their Own." Md. G., Apr. 28.

<sup>1764</sup> Jacob Giles, Mount Pleasant, "The English Language Grammatically." Ibid., July 19.

<sup>1765</sup> Joseph Condon, Cecil County Free School, "English by Good Methods and Grammatically." Pa. G., Mar. 14.

<sup>1769</sup> Somerset Academy, Somerset County, "Rudiments of English Grammar." Va. G., Feb. 23.

<sup>1772</sup> Daniel Melville, Annapolis, "Teacher of a Practical English Grammar." Md. G., Dec. 17.

<sup>99</sup> Md. G., Nov. 4, 1754.

<sup>100</sup> Md. G., Apr. 28, 1757.

<sup>1</sup> Col. Joseph Ward, one of the first to teach grammar and geography in Boston, was "self-taught." Memorandum of an eminent clergyman, Am. J. of Ed., 13, 746.

<sup>2</sup> See Chap. III, p. 56.

## VIRGINIA.

To Virginia credit must be given for the first textbook in English grammar written by an American. Hugh Jones, professor of mathematics in William and Mary College, wrote "A Short English Grammar," published in England in 1724.<sup>3</sup> It seems reasonable to believe that while Jones was teaching in William and Mary some attention to the subject may have been paid, though direct evidence is lacking. But this book was published, so far as we have been able to discover, 10 years before any record of a school or schoolmaster outlining a program which included grammar. Simple justice therefore awards Jones, of Virginia, the place of honor in point of time.

## SOUTH CAROLINA.

To South Carolina belongs the distinction of having the first school of which we have seen any record as teaching English grammatically.<sup>4</sup> In 1734—

William Waterland of Wassamacaw School . . . gives notice that any Gentleman Planter or others, who want to send their Children to School, may be provided with good conveniency for boarding. . . . Writing and Arithmetick in all its most useful Parts, and the Rudiments of Grammar are taught, but more particularly English, of which great care is taken, and by such methods as few Masters care to take the Trouble of, being taught Grammatically.<sup>5</sup>

Waterland's school antedates Franklin's in Philadelphia by 16 years. Another school, in 1742—that of William Gough—ought to be classed as doubtful.

He is now settled entirely at the Plantation of Mr. James Taylor, and continues to teach the several and most useful Branches of Learning (in the English Tongue) according to the London Method, whereby youth may be qualified for Business by Land or Sea.<sup>6</sup>

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<sup>3</sup> A full description in Meriwether, *Colonial Curriculum*, 151-3.

<sup>4</sup> 1734, William Waterland, Wassamacaw, "English being taught grammatically." *South Carolina Gazette*, Nov. 16.

1742, William Gough, Plantation School, "Most useful branches of the Mother Tongue." *Ibid.*, Feb. 13.

1755, Beresford County, "Wanted, a Master to teach the English Language." *Ibid.*, Nov. 6.

1766, John Emmet, Charlestown, "With the English Grammar, to explain, parse, and sketch the English Tongue." *Ibid.*, Sept. 28.

1766, Andrew D'Ellicent, Charlestown, "English Language Grammatically." *Ibid.*, May 20.

1767, William Johnson, Charlestown, "Principles of English Grammar." *Ibid.*, June 15.

1769, Alexander Alexander, Charlestown, "Together with the leading English Grammar." *Ibid.*, Sept. 7.

1769, William Watson, Charlestown, "Taught to write grammatically." *Ibid.*, June 29.

1770, James Oliver, Charlestown, "English Grammar." *Ibid.*, Oct. 30.

1770, Elizabeth Duneau, Charlestown, "Grammatically the English Language." *Ibid.*, May 17.

1771, William Walton, Charlestown, "English Language grammatically." *Ibid.*, Oct. 20.

1772, James Thompson, Charlestown, "Also grammatical use of their own." *Ibid.*, Dec. 10.

<sup>5</sup> S. C. G., Nov. 16, 1734.

<sup>6</sup> *Ibid.*, Feb. 13, 1742.

One especially clear-cut statement—that of William Johnson, Charlestown, 1767—announces:

As soon as they begin to read and write, he proposes to initiate them into the principles of English Grammar, in a manner much more easy than that which is generally practiced, and without much interfering with the work of the school.<sup>1</sup>

The obvious interpretation is that grammar is frequently taught in a difficult manner, which interferes with the work of the school. But the first part of Johnson's statement is evidently not intended to convey that impression. He prefaces it with these remarks:

It is a common, but too well grounded a complaint that a grammatical study of our own language seldom makes any part of the ordinary method of instructing youth in our school.<sup>2</sup>

Johnson's first statement, as interpreted in the foregoing, would be grossly inconsistent with the plain assertion of his prefatory remarks. In short, Johnson's testimony bears out the conclusion reached in this section, that grammatical instruction in English before 1750 was taught only in an occasional school.

#### GEORGIA.

We have seen recorded two schools in Georgia as teaching grammar before 1775.<sup>3</sup>

#### CONCLUSIONS.

A number of private schools gave instruction in English grammar before the Revolution. The three-score schools which we have named include not more than one-tenth of the advertisements of schools available for examination; about one private school in 10 for the entire 50 years (1725-1775) seems to have been turning in the direction of grammar. However, the showing for the subject is better than at first appears, for the advertisements cover many schools which would not have been found teaching grammar even a half century later, when English grammar had come into its own in the curriculum. Only an occasional private school of the secondary grade taught English grammar in the American colonies between 1750 and 1775.

There is evidence of only two schools—Waterland's in South Carolina in 1734 and Fortesque's in Philadelphia in 1743—which were without question teaching the subject before 1750. No further information is available concerning the masters of these schools. This excludes the possibility that, under the influence of Hugh Jones,

<sup>1</sup> Ibid., June 15, 1767.

<sup>2</sup> Ibid.

<sup>3</sup> 1763, John Portrees, Savannah, "Writing and English Grammar." Ga. G., June 30. 1774, Stephen Biddurph, Savannah, "Latin, English, French, and Celtic Languages grammatically." Ibid., Mar. 2.

who wrote a grammar in 1724, after he had severed his relations with William and Mary, some attention may have been paid to grammatical instruction in Virginia.

The decade 1750-1760 in the middle colonies marks for America the serious beginnings of instruction in English grammar. The northern and southern colonies seem to have commenced one to two decades later. After 1750 the middle colonies, under the leadership of Benjamin Franklin in Pennsylvania, began to emphasize the English curriculum, with grammar as the basic study. It received steadily increasing attention from persons starting private schools. Therefore the year 1750 is taken as the most fitting date to mark the beginning of formal English-grammar teaching in America, especially as it coincides exactly with the establishment of Franklin's English School, itself the progenitor of a long line of schools of the middle colonies which based vernacular instruction upon English grammar.

## 2. ENGLISH GRAMMARS IN AMERICA BEFORE 1784.<sup>10</sup>

The first English grammar by an American of which the writer has learned was written in 1724 by Hugh Jones, professor of mathematics in William and Mary College.<sup>11</sup> This book was published in London. So far as is known only one copy is extant, that in the British Museum. No indication concerning its use has come to light.

The earliest instruction in English grammar in the colonies was conducted either without textbooks or with books imported from England. Wickersham, speaking for Pennsylvania, represents a condition which was prevalent in regard to the importations of grammars:

Whether any more than a few straggling copies of the old English grammars . . . ever found their way from England to Pennsylvania is unknown; several of them, however, were reprinted in Philadelphia . . . and may have been used to some extent, but the first works generally taught in the schools were the Philadelphia editions of Webster, Harrison, Murray, and Comly, mainly the last two.<sup>12</sup>

Evidence is available that at least 12 grammatical texts of England were imported or reprinted in America before 1784.<sup>13</sup> Of these, Thomas Dilworth's "A New Guide to the English Tongue," London, 1740, appears to have been the most widely used. Dilworth's book was primarily a speller, and probably introduced as such; but it contained also a "Brief but Comprehensive English Grammar" and a

<sup>10</sup> 1784 is the date of Noah Webster's Grammar, Part II of his Grammatical Institutes of the English Languages, usually considered the first grammar by an American author.

<sup>11</sup> Full description in Meriwether, *Colonial Curriculum*, 151-3.

<sup>12</sup> Wickersham, *Hist. of Ed. in Pa.*, 202.

<sup>13</sup> Appendix A, p. 155.

reader. Its popularity was widespread.<sup>14</sup> Another book, published first in England three decades earlier than Dilworth's, was also imported to a limited extent. This was James Greenwood's "An Essay Towards a Practical English Grammar," London, 1711. Barnard gives the date of the edition probably best known in the colonies as 1753.<sup>15</sup> The book of James Harris—"Hermes, or a Philosophical Inquiry Concerning Grammar," London, 1751, which Wickersham says was reprinted in Philadelphia<sup>16</sup> and reached its seventh edition in 1825<sup>17</sup>—was influential in shaping grammars used in America. A. Fisher's "Practical New Grammar," London, 1763, reached its twenty-eighth edition in America by 1795.<sup>18</sup> Gould Brown used a "New Edition, Enlarged, Improved, and Corrected," 1800.<sup>19</sup>

One of the most popular grammars imported and printed here was "The British Grammar," anonymous, London, 1760. An early student of the history of grammar in America asserts that it was probably the first English grammar reprinted on this side of the Atlantic.<sup>20</sup> This is an error. Lowth was reprinted in 1775;<sup>21</sup> the first reprint of Dilworth's was 1747,<sup>22</sup> while "The British Grammar" was first reprinted in Boston, 1784.<sup>23</sup>

If Dilworth's "New Guide" was the most extensively used, it was because the book was primarily a speller, grammar, and reader combined. The text, considered strictly as a grammar, of most extensive use and influence in the colonies was Lowth's "A Short Introduction to English Grammar," London, 1758. Harvard used Lowth as early as 1774<sup>24</sup> and as late as 1841.<sup>25</sup> Meanwhile other colleges introduced it into their curricula.<sup>26</sup> Wells says that Lowth was "first published anonymously . . . soon came into general notice, and has probably exerted more influence than any other treatise in forming the character of the numerous grammars that have since been used as school books, in Great Britain and the United States." Lowth's greatest

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<sup>14</sup> The first American reprint seems to have been the edition of Franklin, in Philadelphia, 1747. Evans, *Am. Bibl.*, 3, 76. Evans omitted the 1747 edition from his second volume. He lists 13 different American editions between 1747 and 1792. Ten thousand copies printed in one edition seems to have been a popular number. *Ibid.*, 4, 314 and 7, 111.

The Lancaster, Pa., edition of 1778 omitted the grammar until (as the publication said) "peace and commerce shall again smile on us, and when in spite of Britain and a certain one named Beelzebub, we shall have paper and books of every kind in abundance." Wickersham, *op. cit.*, 198.

<sup>15</sup> *Am. J. of Ed.*, XIII, 639.

<sup>16</sup> Wickersham, *op. cit.*, 202.

<sup>17</sup> *C. S. J.*, 3, 209.

<sup>18</sup> Barnard, *op. cit.*, 13, 633.

<sup>19</sup> Brown, *Gram. of Gram.*, XV.

<sup>20</sup> Wallis (W. B. Fowle), *C. S. J.*, 12, 20.

<sup>21</sup> Evans, *op. cit.*, 5, 150.

<sup>22</sup> *Ibid.*, 3, 76 footnote.

<sup>23</sup> *Ibid.*, 6, 274.

<sup>24</sup> *C. S. J.*, 11 (1849), 257.

<sup>25</sup> *Ibid.*, 3 (1841), 230.

<sup>26</sup> Discussion in the following section.



significance is that most of his rules have been copied verbatim by Lindley Murray and again from him by many compilers of lesser note.<sup>27</sup> Webster says that "Wallis and Lowth are the two ablest writers on English Grammar."<sup>28</sup> Lowth enjoyed numerous American reprints.<sup>29</sup>

One other important book was Ash's "Grammatical Institutes," first published in London, 1763, and enjoying four other editions there before 1795.<sup>30</sup> Its subtitle was "An Easy Introduction to Dr. Lowth's English Grammar" and was based on Lowth's seventh London edition.<sup>31</sup> Ash was reprinted and sold in New York in 1774 by High Gain.<sup>32</sup>

In addition to the books named, there were numerous other English publications which contained grammars, not strictly textbooks, circulating in America before 1784. In this list are McTurner's "Spelling Book and English Grammar," Fenning's Dictionary, Buchanan's Dictionary, Johnson's Dictionary, all of which contained brief grammars. In the advertisements of colonial booksellers we see indications that other grammars of which we have found no definite trace made their way from England. Numerous advertisements announce "Spelling Books by the dozen," "English Grammars," etc.<sup>33</sup> This is indicative of the conclusion that must be reached: Before grammars were widely printed in America the circulation of popular books imported was quite common. Reprints began to appear frequently after 1747.

Finally, more interesting, if not so significant, is the fact that several other Americans besides Hugh Jones antedated Noah Webster in publishing English grammars. In 1765 Samuel Johnson, the first president of King's College, published in New York "The First Easy Rudiments of Grammar, applied to the English Tongue. By one who is extremely desirous to promote good literature in America, and especially a right English education. For the use of Schools."<sup>34</sup> This volume of 36 pages appears to have been the first grammar prepared by an American and published in America. It was printed by

<sup>27</sup> Wells, C. S. J., 3, 230.

<sup>28</sup> *Ibid.*

<sup>29</sup> First reprint, 1775, Philadelphia, Evans, op. cit., 5, 150.

<sup>30</sup> Brown, *Gram. of Gram.*, XII.

<sup>31</sup> Evans, op. cit., 5, 5.

<sup>32</sup> *Ibid.*

<sup>33</sup> Pa. G., Jan. 6, 1742; S. C. G., Oct. 3, 1748; B. N. L., Sept. 5, 1750, etc.

<sup>34</sup> Evans, op. cit., 4, 18.

Johnson wrote his English grammar for use in the preliminary education of his two grandsons. He prepared also a Hebrew grammar to go side by side with his English grammar, the structure of the two languages bearing in his view a close resemblance. He said: "I am still pursuing the same design of promoting the study of the Hebrew Scriptures . . . and I think of no better project than to get the grammar of it studied with a grammar of our own excellent language as the best introduction to what is called a liberal education. . . . Beardsley, *Life and Correspondence of Samuel Johnson*, 306-7.

Beardsley affirms that Johnson's book was printed by W. Faden, London, in 1767, and four years afterwards a second edition was published by the same printer, *Ibid.*, 307.

J. Holt, near Exchange, in Broad Street, New York.<sup>35</sup> Johnson was followed, in 1773, by Thomas Byerley, also a schoolmaster of New York, who published "A Plain and Easy Introduction to English Grammar."<sup>36</sup> Byerley has an elaborate description of the methods used in his school, a discussion of which appears in a later chapter.<sup>37</sup>

In 1779 Abel Curtis, of Dartmouth College, published "A Compend of English Grammar: Being an Attempt to point out the Fundamental Principles of the English Language."<sup>38</sup>

We have, then, the undoubted cases of Jones, 1724; Johnson, 1765; Byerley, 1773; and Curtis, 1779, to cite as American writers publishing grammars before Noah Webster in 1784. We conclude that Hugh Jones was the first American author to write a textbook in English grammar; that Samuel Johnson was the first to write a grammar published in America; that the books of these two men, together with those of Byerley and Curtis, precede Webster's book in point of time. The latter was, then, the author of at least the fifth, not the first, English grammar by an American. To be sure, the writer has seen no evidence that any of the earlier books were widely used in the schools or were influential in directing the new tendency in America to stress grammatical instruction. In one sense Webster retains the place usually assigned him as the first American grammarian. He yields to the others only in the matter of chronological priority.

### 3. EARLY INSTRUCTION IN ENGLISH GRAMMAR IN AMERICAN COLLEGES.

When King's College was founded, President Samuel Johnson, a Yale graduate, made this significant announcement: "It is the further Design of this college, to instruct and perfect the Youth in the Learned Languages, and in the arts of *reasoning* exactly, of *writing* correctly, and *speaking* eloquently."<sup>39</sup> This was stated in the first public prospectus of the college work.<sup>40</sup> To Johnson<sup>41</sup> has been assigned the honor of being the first American author of a textbook in English grammar published on this side of the Atlantic. His book was entitled "An English Grammar. The First Easy Rudiments of Grammar applied to the English Tongue. By one who is extremely desirous to promote good literature in America, and especially a Right English Education. For the use of Schools."<sup>42</sup> This book was published in 1765, more than a decade after he became president of King's

<sup>35</sup> Ibid.

<sup>36</sup> Evans, op. cit., 4, 353.

<sup>37</sup> See Chap. V, p. 129.

<sup>38</sup> Printed by Spooner, Dresden (Dartmouth College), Evans, 6, 10.

<sup>39</sup> Pine, Columbia Col. Charters and Acts, 70.

<sup>40</sup> N. Y. G. or W. P. B., July 3, 1754.

<sup>41</sup> See Chap. II, p. 35.

<sup>42</sup> Evans, Am. Bibl., 4, 18.

College. Obviously the book was not of college grade. His early authorship is cited here to indicate the genesis of the Columbia plan of education promulgated by his son, William Samuel Johnson, president of Columbia in 1785.

In this plan emphasis was laid upon English that was quite in keeping with the ideal set forth at the founding by the father and with the earlier interests of the son. The plan has several features which, taken all in all, make it an innovation in college curricula. We concern ourselves here only with the striking emphasis on instruction in the vernacular.<sup>43</sup>

A few years later, 1792, a pamphlet "Present State of Learning in Columbia College" shows that the English part of the 1785 program was thoroughly carried out.<sup>44</sup> In fine, the King's College and Columbia curricula show a steady growth in popularity of instruction in the mother tongue. This is in startling contrast to the "starving," as Franklin called it, of English in the academy in which the University of Pennsylvania had its beginnings.<sup>45</sup>

The experience of both Pennsylvania and Harvard shows that, as in the case of Columbia, the first impetus in colleges toward instruction in the mother tongue came through the desire for better elocution and oratory. In Harvard, disputations, heretofore carried on in Latin, after the middle of the eighteenth century came to be given in the vernacular. President Quincy, after saying that for nearly a

<sup>43</sup> The Plan of Education, 1785 :

*Freshman Class.* English Grammar, together with the art of reading and speaking English with propriety and elegance. Once a week . . . translation out of Latin into English ; . . . this to be considered as English rather than a Latin exercise.

*Sophomore Class.* Once a week deliver to the President an English composition upon a subject to be assigned.

*Junior Class.* Once a week, to the President, an English or Latin composition, upon a subject to be assigned, which compositions are expected to be longer and more correct as the students advance.

*Senior Class.* To deliver, once a week, an English or Latin Composition to the President upon a subject of their own choosing.

The written exercises of each class are to be subscribed with the author's name, and after having undergone the President's criticism are to be filed and produced at the monthly visitations for the inspection of the Regents and Professors. So many of each of the three senior classes as will bring it to each student's turn in a month are once a week to repeat in the Hall . . . some proper piece of English or Latin, which the President is to direct, and which, at the monthly visitation, may be such of their weekly exercises as the President may think have most merit.

Plan cited in full, Snow, Col. Cur. in U. S., 93-6.

<sup>44</sup> "The President, William Samuel Johnson, LL.D., is Lecturing in Rhetoric and Belles Lettres, and instructs the students in the Grammar and proper pronunciation of the English Language, on the plan of Webster's and Lowth's Grammars, and Sheridan's Rhetorical Grammar. In Rhetoric, on the plan of Holme's and Stirling's Rhetoric . . . a complete course of instruction in . . . the English Language in particular ; in the art of writing and speaking it with propriety, elegance and force."

"Each student is obliged, every Saturday, to deliver him (President Johnson) a composition, in which he corrects the errors either in orthography, grammar, style or sentiment, and makes the necessary observations on them when he returns the composition to the writers." Ibid., 98-102.

<sup>45</sup> Smyth, Life and Writings, B. Franklin, X, 16. See Chap. III, p. 48.

century (1650-1750) the Harvard curriculum had resisted innovations, points out that in 1754 the overseers raised a committee "to project some new method to promote oratory." The result was a system of disputations in English, apparently a radical innovation.<sup>48</sup> But it was not until 1766 that a committee of the board proposes there should be a "distinct Tutor in elocution, composition in English. Rhetoric, and other parts of Belles Lettres."<sup>49</sup>

About the time that this new turn toward vernacular instruction was coming in Harvard (1754-1766) the University of Pennsylvania was being started in the Academy and Charity School of Philadelphia (1750-1756). Chapter III of this study is devoted to an examination of the character of this school and its influence in spreading vernacular education in secondary schools. The point to be anticipated here from that discussion is that good speaking and good writing in English were the primary motives lying back of the English program, with grammar as the central study.<sup>50</sup>

That Princeton was the first college to require grammar as an entrance requirement, in 1819, is the statement of Broome.<sup>51</sup> Murray, in a study of the first-mentioned texts in the College of New Jersey (Princeton), based upon catalogues of the institution, finds Lowth's Grammar first in 1793, and adds that not until 1840 does grammar appear in the catalogues as an admission requirement.<sup>52</sup> The statements of Broome and Murray do not tally by 21 years; the difference is entirely consistent with the extreme difficulty of assigning definite dates for the first appearance of any subject. It is not at all certain that statutory provisions indicate the earliest date. As a matter of fact, both Broome and Murray are incorrect in assigning to Princeton the first admission requirements in grammar.<sup>53</sup>

If it were true that Princeton was the first, that fact would be consistent with others which can be positively stated. That the year assigned for grammar should be so late is, however, a matter of some wonder. From the year 1763 forward the College of New Jersey was intimately associated with a preparatory school called by President Finley "an Appendage" of the college. Announcement of the academy appeared in 1763.<sup>54</sup> In 1764 the school was opened.

<sup>48</sup> Quincy, *Hist. Har. Univ.*, 1840, II, 124-5.

<sup>49</sup> *Ibid.*, 498, Resolutions in full.

<sup>50</sup> See Chap. III, p. 43.

<sup>51</sup> Broome gives the dates at which various new subjects at the beginning of the nineteenth century were definitely placed in the college entrance requirements as follows: Up to 1800 the requirements were Latin, Greek, and arithmetic. Geography was added in 1807; English grammar, 1819; algebra, 1820; geometry, 1844; ancient history, 1847. Broome affirms that all of these were first required by Harvard, except English grammar, in which Princeton took the lead, and adds that the ambiguous term "grammar" appears in the Williams College catalogue for 1795. A *Hist. and Crit. discussion of Col. Adm. Reg.*, Columbia Univ. Cont., XI, 80-82.

<sup>52</sup> Murray, *Hist. of Ed. in N. J.*, 57, Murray's statement is "South English Grammar."

<sup>53</sup> See discussion (p. 40) of the requirements of the University of North Carolina.

<sup>54</sup> *Pa. J.*, Nov. 10, 1768; *N. J. Arc.*, XXIV, 268.

The Publick is hereby notified, that as soon as a competent Number of Scholars, offer themselves, an English School will be opened, under the Inspection of the President of the New-Jersey College, as an Appendage to the same: in which is proposed to be taught the English Language grammatically, and that the Boys, when found capable, be exercised in Compositions, as well as in pronouncing Orations publickly.<sup>54</sup>

In 1769 another extremely suggestive advertisement of Princeton appears. President Witherspoon not only advertises that the college course gives "Remarks in the Grammar and spelling of the English Tongue"<sup>54</sup> but he also adds, speaking of candidates for admission, "Scholars should also be well acquainted with . . . spelling in English Language and writing it without grammatical errors."<sup>55</sup> While, of course, this is not a definite entrance requirement, with examination, it is an indication that the president of Princeton as early as 1769 was pointing the way to such a requirement. Parenthetically it may be remarked that Witherspoon states almost exactly the proper test of grammatical accuracy, the test to which colleges did not officially arrive until one hundred years later, when, in 1873, Harvard's new admission requirements were formulated. For all the intervening time the entrance test consisted of examinations in formal English grammar, which, for a large part of that century, meant the slavish repetition of pages and pages of rules.<sup>56</sup> The point of present interest, however, is that in this statement of President Witherspoon, in 1769, we see in embryo, at least, the college-entrance requirement of 1819; indeed, that of the present-day requirements. Princeton, like Columbia and Pennsylvania, had been in touch with English as a language study for nearly 25 years before the Revolution.

The diary of Solomon Droune, of the class of 1773 in Rhode Island College (Brown), testifies that he began the study of English grammar in 1771: "Commenced Hammond's Algebra and British Grammar in December,"<sup>57</sup> his sophomore year. The inference is strong that his class was studying "The British Grammar," but, unfortunately, we have discovered no corroborating testimony. The college laws of 1783 show that in the sophomore year were studied Lowth's Vernacular Grammar, Rhetoric, Ward's Oratory, and Sheridan's Lectures on Elocution,<sup>58</sup> and an extract from a letter of the president the following year advises a Mr. Wood, if he desires to enter the sophomore class, "to study with great attention Lowth's English Grammar,

<sup>54</sup> Ibid., May 31, 1764; N. J. Arc., XXIV, 370.

A grammar school "as a nursery for the college" had been established under President Burr, but not until 1764 was "it judged proper that an English school should be also established for the sole intention of teaching young lads to write well, to cipher, and to pronounce and read the English tongue with accuracy and precision." Order of trustees, quoted, McLean, op. cit., 529.

<sup>55</sup> Pa. J., Mar. 2, 1769.

<sup>56</sup> N. Y. J. or W. M., May 1, 1769.

<sup>57</sup> See Chap. V.

<sup>58</sup> Quoted by Bronson. Hist. Brown Univ., 102.

<sup>59</sup> Laws in full, Ibid., 508-18.

& Sterling's, or Turner's Rhetoric as preparatory to Ward's Oratory & accustom himself to compose in English."<sup>50</sup>

In the charter of Queen's College (which became Rutgers in 1823), first drafted by Dutch Reformed ministers in 1766 and finally granted in 1770, we find positive indications of the trend of the time toward grammatical instruction in English. It is especially significant as coming from a body of men who might have been supposed to favor a language other than English. The charter provides—

There shall always be, residing at or near the college, at least one professor, or teacher well versed in the English language, elected . . . from time to time, and at all times hereafter grammatically to instruct the students of the said college in the knowledge of the English language; . . . provided also that all records shall be in the English language and no other:<sup>51</sup>

The grammar school of Queen's, in the first announcement in 1771, advertised that "Mr. Fr  derick Frelinghausen . . . teaches the English Language grammatically."<sup>51</sup>

In all the preceding discussion there is one State which has not been mentioned—North Carolina. In 1794 the University of North Carolina was opened with a program of English studies very far in advance of any college in the country before 1800.<sup>52</sup> In 1794 the charges for tuition were as follows:

For Reading, Writing, Arithmetic, Book-keeping, \$8.00 per annum. For Latin, Greek, French, English Grammar, Geography, History and Belles Lettres, \$12.50 per annum. . . .

Here is an institution starting up in a sparsely settled and largely unlettered frontier district. As the historian says, half of those who presented themselves were unprepared for college classes.<sup>53</sup> Therefore after the first year the institution was divided into the preparatory school and the university proper.

In 1795, according to the statutes, the course of study in the preparatory school was as follows:

(a) The English Language, to be taught grammatically on the basis of Webster's and South's Grammar.<sup>54</sup> (b) Writing in a neat and correct manner. (c) Arithmetic, with the four first rules, with the Rule of Three. (d) Reading and Pronouncing select passages from the Purest English authors. (e) Copying in a fair and correct manner select pages from the purest English authors. (f) The English Language shall be regularly continued, it being considered the primary object, and the other languages but auxiliaries. Any language except English may be omitted at the request of the Parents.

Under the professorships in the university, English was continued. "Rhetoric on the plan of Sheridan, . . . The English Language, Extracts in Prose and Verse. Scott's Collections."

<sup>50</sup> Ibid., 103.

<sup>51</sup> Clews, op. cit., 343.

<sup>52</sup> N. Y. J. or G. A., Oct. 24, 1771.

<sup>53</sup> Battle, History of the Univ. of N. C., Vol. I, 50 et seq.

<sup>54</sup> Ibid., 65.

<sup>55</sup> Means Lowth's Grammar.

Here is a college which in 1795 dares to proclaim that English is "the primary object," that "other languages are auxiliaries," and that "any language, except English, may be omitted." The college did not grant the A. B. degree, however, except for Latin and Greek, and the historian tells us that afterwards the university "degenerated into the purely classical type." But the important point is yet to be noted. In 1795, when the English program for the academy was inaugurated, a statute of admission to the college seemed to prescribe English; it is thus cited by Battle:

The Students who passed approved examinations on the studies of the preparatory school were admitted upon the general establishment of the University. There was also an entrance examination in Latin, but the candidates were not required to translate English into Latin.\*

English grammar, on the basis of Lowth and Webster, was the first study of the preparatory school. A university statute prescribing entrance examinations in the preparatory subjects was passed in 1795. This appears to be a clear case of an entrance examination in English grammar 24 years before 1819, the date which Broome assigns to Princeton. An error of a quarter of a century shows how dangerous it is to generalize on data derived only from a few well-known institutions.

One further point as to the relations of colleges to English grammar needs is noted. We have seen that Hugh Jones, professor of mathematics in William and Mary, published the first grammar on record, written in America but printed in London in 1724. That book was called "A Short English Grammar, An Accidence to the English Tongue." The description of the contents of the book\*\* seems to indicate that it was deficient in syntax and was devoted largely to preparation for oral work. This, too, would certainly be in keeping with the early date at which it was published. The entire discussion of this chapter and of the following chapter indicates that grammar, as well as written composition and literature, grew up with and possibly out of declamation, oratory, disputations, and the various branches of oral composition. Hugh Jones's "English Grammar" is in strict accord with this hypothesis.

Students of the history of education know that the colleges of America have usually been compelled to emphasize curricula of a more elementary grade in their early years. It was not true of Harvard, perhaps, because the founders of Harvard were the men who dictated the laws of 1642 and 1647 requiring a fitting school in every town of 100 families. Moreover, these schools existed before the law of 1647. We have just seen Princeton under the necessity of establishing a

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\* Battle, *History of the Univ. of N. C.*, Vol. I, 98.

\*\* Meriwether, *Col. Cur.*, 151-3.

school of lower grade than the college itself and that the new University of North Carolina felt compelled to do so. In the following chapter we shall see the University of Pennsylvania grow from an academy and maintain that academy as a fitting school until well into the nineteenth century. Western colleges growing up amid frontier conditions in the past 75 years also labored under this necessity.

The fact that between 1775 and 1825 the older colleges of the East felt called upon to give instruction in the freshman or sophomore years in English grammar<sup>67</sup> carries with it several inferences: First, that there was a growing interest in the mother tongue, which compelled colleges established under the exclusive classical régime to enlarge their curricula, and, further, induced colleges founded in the last quarter of the eighteenth century to incorporate English as a language from the very beginning; second, that, as college students were entering without the ability to speak and write grammatical English, that subject was not adequately taught in the lower schools. In short, the attitude of colleges toward grammar before 1800 shows that there was need for the new subject; that the call for it was positive; that this must have been in order that the subject might be introduced into the older institutions; and that the lower schools were not meeting the need.

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<sup>67</sup> Princeton used Lowth in 1793. Snow, *op. cit.*, 109. Yale used Lowth, 1774-1784, Webster, 1792, and Murray in succession before 1800. *Ibid.*, 79, 91, 128. The College of Rhode Island used the same texts in the same order. *Ibid.*, 109, 111, 113.



## Chapter III.

### INFLUENCES ADDING GRAMMAR TO THE CURRICULUM.

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So customary is it to look to Massachusetts, and New England generally, for pioneer movements in American colonial education that it is refreshing to find other colonies taking lead in giving to the vernacular a prominent place in the curriculum. We have seen that the first American writer of a textbook in grammar was the Virginian, Hugh Jones, who published his book in London in 1724; that Noah Webster was also antedated by Johnson, 1765, and by Byerley, 1773, both of New York, and by Curtis, 1778, of New Hampshire. The first school of authentic record we have found teaching the mother tongue "grammatically" was in Wassamacaw, S. C., taught by William Waterland. Moreover, the middle colonies, headed by Pennsylvania, were apparently two decades in advance of New England in having a respectable number of private schools placing grammar on a secondary-school footing. To New York (King's College and Columbia) belongs credit for the first thorough devotion to the mother tongue before 1800, and to North Carolina for the first entrance examination in the subject.

New England, finally, can not claim the first secondary school using English curricula to exert the widest influence in advancing vernacular instruction throughout the colonies. To Pennsylvania, to the Philadelphia Academy, and to Benjamin Franklin, belong this honor, the greatest of all. The present chapter gives an account of this institution, with special reference to what it taught, the influence it exerted, and the motives which prompted it.

#### 1. FRANKLIN'S ENGLISH SCHOOL, 1750.

The story of this institution begins with the year 1739. The evangelist, George Whitefield, preached in Philadelphia to enormous crowds but was excluded from most of the churches of the city.<sup>66</sup> Opposition of religious sects met him on every side. The hostility naturally drew to his support inhabitants who were free from narrower religious prejudice, among them Benjamin Franklin. Whitefield's avowed mission—the founding of an orphanage—tintured his

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<sup>66</sup> He did preach in Christ Church, but was opposed by other churches. Wood, *Hist. of U. of P.* (1834), in *Mem. Hist. So. of Pa.*, III, 178.

fervid discussions and turned the attention of his listeners to the unsatisfactory status of education for the unfortunates of the city.<sup>69</sup> In 1743, amid the fervor of Whitefield's agitation, Franklin drew up a "scheme" for a new school in Philadelphia.<sup>70</sup> The scheme was not further promulgated for six years, danger of war with France and Spain and other troubles having intervened.<sup>71</sup> But in 1749 Franklin's scheme became the "Proposals Relating to the Education of Youth in Philadelphia." Interest here centers in the English curriculum proposed by the author and inaugurated by the trustees. Extracts from the proposals, together with the constitutions and the program of the English school, furnish evidence as to what really was the curriculum which dared to lift its head among the Latin-grammar schools of the period.

#### PROPOSALS.<sup>72</sup>

The proposals state that the rector should be—

a man of good Understanding, good Morals, diligent and patient, learn'd in the Languages and Sciences, and a correct pure Speaker and Writer of the *English* " Tongue. . . .

All should be taught to write a *fair Hand*, and swift, as that is useful to All. . . .

The English Language might be taught by Grammar; in which some of our best Writers, as *Tillotson, Addison, Pope, Algernon Sidney, Cato's Letters, &c.* should be Classics: the Stiles principally to be cultivated, being the clear and concise. Reading should also be taught, and pronouncing, properly, distinctly, emphatically; not with an even Tone, which *under-does*, nor a theatrical, which *over-does* Nature.<sup>73</sup>

To form their Stile they should be put to writing Letters to each other, making Abstracts of what they read; or writing the same Things in their own Words: telling or writing Stories lately read, in their own Expressions. All to be revised and corrected by the Tutor, who should give his Reasons, and explain the Force and Import of Words, &c.

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<sup>69</sup> In April, 1740, Franklin attended a meeting in which Whitefield preached of the orphanage he intended to found. Franklin advised the founding of the institution in Philadelphia, urging that materials and workmen would be lacking in the wilds of Georgia. This was the occasion on which, Franklin tells us, after taking out various smaller sums, "I finally empty'd my pocket wholly into the collector's bowl, gold and all." (Autobiography, Griffin ed., 173.)

To the preaching of Whitefield may be ascribed part of the emphasis in earlier Pennsylvania legislation upon charity schools. This, together with the wide divergence of religious beliefs, caused Pennsylvania to be one of the last States to establish a free system of schools, in 1833.

<sup>70</sup> 1743 was the year that Charles Postesque advertised his private school in Philadelphia, teaching "English in a grammatical manner." Pa. G., Dec. 1, 1743.

<sup>71</sup> Autobiography, op. cit., 178-89.

<sup>72</sup> Proposals given in Smyth, *Life and Writ. of Benjamin Franklin*, II, 386 et seq.

<sup>73</sup> All words italicized are so written in the proposals as printed in Smyth.

<sup>74</sup> This savors so strongly of Hamlet's speech to the players that we are surprised not to find Shakespeare in the list of "Classicks."

To form their Pronunciation, they may be put on Declamations, repeating Speeches, delivering Orations &c.; the Tutor assisting at the Rehearsals, teaching, advising, correcting their Accent, &c."

#### THE CONSTITUTIONS.

These were drawn up by a committee of two, consisting of Tench Francis, attorney general, and Franklin. The constitutions stipulate for instruction "in the dead and living Languages, particularly their Mother Tongue, and all useful Branches of liberal Arts and Science"<sup>76</sup> and provide:

An ACADEMY for teaching the *Latin* and *Greek* Languages, the *English Tongue* grammatically, and as a Language, the most useful living foreign Languages, *French*, *German* and *Spanish*: As matters of Erudition naturally flowing from the Languages . . . (The subjects named in the Proposals.)

The *English Master* shall be obliged, without the Assistance of any Tutor, to teach Forty Scholars the *English Tongue* grammatically, and as a Language."

Concerning this plan, remarkable for its emphasis upon the English, Franklin states that his desires "went no further than to procure a good English education."<sup>78</sup> But his friends insisted upon a classical school. In both the documents just cited the sections dealing with the classics are distinctly subordinated and have the appearance of an afterthought, inserted after the original draft to appease Franklin's coworkers. For himself, the founder was resolved "to nourish the English school by every means in my power."<sup>79</sup>

#### PROGRAM OF THE ENGLISH SCHOOL.

The Academy and Charity School, with Franklin as the first president of the trustees, was established in 1750,<sup>80</sup> with the following vernacular program in the English school:

##### First Class:

English Grammar, rules.

Orthography.

Short Pieces, such as Craxall's Fables.

<sup>76</sup> To this vernacular instruction are added geography, chronology, ancient customs, morality, history, natural history, history of commerce, mathematics. Also, "All intended for Divinity should be taught the *Latin* and *Greek*; for Physick, the *Latin*, *Greek* and *French*; for Law, the *Latin* and *French*; Merchants, the *French*, *German* and *Spanish*; and though all should not be compell'd to learn *Latin*, *Greek* or the modern foreign Languages; yet none that have an ardent Desire to learn them should be refused; their *English*, *Arithmetick*, and other studies absolutely necessary being at the same time not neglected." Smyth, op. cit., 394.

<sup>77</sup> Montgomery, Hist. of U. of P., 46.

<sup>78</sup> Ibid., 47, 48.

<sup>79</sup> Sparks, Works of Benjamin Franklin, II, 133.

<sup>80</sup> Ibid., 134.

<sup>81</sup> Franklin, writing from memory, in 1789, gives the date as 1749, but the date of conveyance of "The New Building" was Feb. 1, 1750. Advertisement of the Academy in Pa. G., Dec. 11, 1750.

**Second Class:**

Expressive Reading.

Grammar, parts of speech and sentence structure.

The Spectator.

**Third Class:**

Speaking.

Elements of Rhetoric, Grammatical errors corrected.

**Fourth Class:**

Composition, Letter writing, little stories, accounts of reading.

Letters, Temple and Pope.

Speaking and Oral Reading.

**Fifth Class:**

Composition, Essays in Prose and Verse.

Oral Reading and Speaking.

**Sixth Class:**

English Authors, Tillotson, Milton, Locke, Addison, Pope, Swift, Spectator and Guardian.

Some classes always to be with the writing master and with the Arithmetick master, while the rest are in the English school.<sup>81</sup>**THE CAREER OF THE ENGLISH PROGRAM.**

Study of the proposals, the constitutions, and the program indicates a secondary school, with the vernacular as its central study, as pretentious as any of the Latin schools of the period.<sup>82</sup> The phrases "English Tongue grammatically" and "as a Language," many times repeated, are eloquent with that purpose. Franklin was no advocate of the classics as the backbone of public instruction. He affirmed "the still prevailing custom of . . . teaching the Latin and Greek languages . . . I consider . . . in no other light than as the *chapeau bras* of modern literature."<sup>83</sup> Indeed, the English program contains almost every element of the best modern secondary-school practice in the vernacular: Grammar; composition, both oral and written; declamation; and literature in the form of the classics of the mother tongue. Other studies are grouped around the English. It seems safe to believe that never before in America, and not for quite half a century later, was any such complete English program projected. It was almost 100 years in advance of its time. Like the leaders of most reforms, Franklin as champion of the mother tongue in secondary education seems to stand alone. The institution he founded was solitary. He was as distinctly a pioneer in education as he was in science.

At first the English school prospered. In the opening year the English and the Latin schools together numbered more than 100

<sup>81</sup> The English program is compiled from Franklin's Works, Sparks, op. cit., II, 125-32.

<sup>82</sup> It may be safer to say that the English school was intended to be on an equal footing with the Latin. In reality, it never was. In the very beginning the Latin master received a salary of £200, the English master £100. The former had more assistance than the latter. The time of the English master was often employed in the Latin school. Smyth, op. cit., X, 12.

<sup>83</sup> Smyth, op. cit., II, 159.

pupils.<sup>84</sup> In 1752 there were above 90 scholars in the English school alone, according to a minute of the trustees.<sup>85</sup> The first English master was David James Dove, who had taught grammar in Chichester, England, for 16 years and who was in Franklin's estimation "a clean, pure Speaker and Writer of English."<sup>86</sup> Commenting on the early success of the English program, Franklin says:

He (Mr. Dove) had a good Voice, read perfectly well, with proper Accent and just Pronunciation, and his Method of communicating Habits of the same kind to his Pupils was this. When he gave a Lesson to one of them, he always first read it to him aloud, with all the different Modulations of the Voice that the Subject and the Sense required. These the Scholars, in studying and repeating the Lesson, naturally endeavour'd to imitate; and it was really surprizing to see how soon they caught his Manner. . . . In a few Weeks after opening his School, the Trustees were invited to hear the Scholars read and recite. . . . The Performances were surprizingly good . . . and the English School thereby acquired such Reputation, that the Number of Mr. Dove's pupils soon mounted to upwards of Ninety, which Number did not diminish as long as he continued Master, viz., upwards of two years.<sup>87</sup>

Unfortunately the high-water mark of the English school's prosperity was reached only two years after its founding. In 1753 Ebenezer Kinnersley was elected successor to Dove, who devoted himself to a private school in Philadelphia which he had begun while still active in the Academy.<sup>88</sup> Kinnersley, who had collaborated with Franklin in experimenting with electricity,<sup>89</sup> was evidently more proficient in science than in teaching English, for under him the English school began a rapid decline. In the words of Franklin, "the Trustees provided another Master . . . not possessing the Talents of an English School Master in the same Perfection with Mr. Dove," whereupon "the school diminished daily and soon was found to have about forty scholars left."<sup>91</sup> The Performances . . . in Reading and Speaking

<sup>84</sup> Quoted from sermon on education by Rev. Richard Peters, 1750, preached at the opening of the Academy, Montgomery, op. cit., 141.

<sup>85</sup> "There being above ninety Scholars in the English School, and Mr. Dove having declared he found it impossible duly to instruct so great a number without another assistant." . . . Quoted from the minutes, Dec. 10, 1751, *Ibid.*, 144.

<sup>86</sup> Letter to Samuel Johnson, Dec. 4, 1751. *Ibid.*, 513.

It is significant that Franklin endeavored by every means in his power to secure Samuel Johnson to become the English master. *Ibid.*, 508.

<sup>87</sup> This is to-day considered extremely bad practice in teaching oral English. "Imitate me," "this is the way to speak the passage," is indeed the quickest way to secure results and doubtless enabled Dove to give public exhibitions within a few weeks after beginning his work. But direct imitation is bad pedagogy.

<sup>88</sup> Smyth, op. cit., X, 14, 15.

<sup>89</sup> Pa. G., Aug. 29, 1751.

<sup>90</sup> Kinnersley is said by Provost Smith to have been "the chief inventor of the electrical apparatus, as well as the author of a considerable part of those discoveries in electricity published by Mr. Franklin, to whom he communicated them." *Amer. Mag.*, Oct., 1758; cited, Wood, *Mem. Hist. Soc. Pa.*, III, 191. Kinnersley published "Experiments in Electricity," 1764, in Philadelphia. *Cat. of Public. Prior to 1775*, in *Trans. of Am. Antiq. Soc.*, II, 570. Evans, op. cit., 3, 390.

<sup>91</sup> The trustees' minutes, Mar. 5, 1757, give the number of students: Philosophy school, 12; Latin, 60; Mathematical, 22; English, 31. Montgomery, op. cit., 282-4.

... discontinued and the English School has never since recovered its original Reputation."<sup>82</sup>

The retrogression of the English school and the prosperity of the Latin school receives Franklin's bitter condemnation. He himself was absent from Philadelphia much of the time for nearly 30 years, and, as he says, "in the course of 14 years several of the original Trustees, who had been disposed to favour the English School, deceased, and others not so favorable were chosen to supply their places."<sup>83</sup> The whole story of the process by which, to use his words, English "was starved out of the Scheme of Education" is set forth by him in "Observations Relative to the Intentions of the Original Founders of the Academy in Philadelphia," published near the end of his life, in the year 1789.<sup>84</sup>

Almost pathetically he bemoans the failure of the English school:

I am the only one of the original Trustees now living, and I am just stepping into the grave myself. . . . I seem here to be surrounded by the Ghosts of my dear departed Friends, beckoning and urging me to use the only Tongue now left us, in demanding That Justice to our Grandchildren that our Children has [Franklin's defective grammar] been denied.<sup>85</sup>

He cites numerous instances of prejudice on the part of the "Latinists" to kill the English curriculum, running it down until in 1763 "Mr. Kinnersley's time was entirely taken up in teaching little boys the elements of the English Language (that is, it was dwindled into a School similar to those kept by old Women, who teach Children Letters)."<sup>86</sup> In another connection Franklin asserts:

The Latinists were combin'd to deny the English School as useless. It was without Example, they said, as indeed they still say (1789), that a School for teaching the Vulgar Tongue, and the Sciences in that Tongue, was ever formed with a College, and that the Latin Masters were fully competent to teach English." . . . Thus by our injudiciously starving the English Part out of our Scheme of Education, we only saved £50 a year. . . . We lost Fifty Scholars which would have been £200 a year, and defeated, besides, one great End of the Institution.<sup>87</sup>

In spite of "Neglect, Slightings, Discouragements, and Injustice" (Franklin's words)<sup>88</sup> the English program never entirely died. On July 23, 1769, a resolution passed the board that "after the 17th of

<sup>82</sup> Smyth, op. cit., X, 15.

<sup>83</sup> Ibid., 16.

<sup>84</sup> Ibid., 9-31.

<sup>85</sup> Smyth, op. cit., X, 29.

<sup>86</sup> "The State of the English School was taken into consideration and it was observed that Mr. Kinnersley's Time was entirely taken up with Teaching little Boys the Elements of the English Language." Min. trustees, Feb. 3, 1763. Montgomery, op. cit., 247.

<sup>87</sup> Smyth, op. cit., X, 16, 19.

<sup>88</sup> Franklin appears to overstate the opposition. About the only part of the English program actually starved out was the public exhibitions, of which Mr. Dove had made so popular a showing. It is interesting to note that the branch which hung on most tenaciously was English grammar.

<sup>89</sup> Smyth, op. cit., 27.

October next, Mr. Kinnersley's present Salary do cease, and that from that time the said School . . . shall be on the following Footing, viz . . ." (the fees of the pupils to go directly to the English master, who is guaranteed no salary.<sup>1</sup> But on August 1, 1769, this action was reconsidered, and on July 21, 1771, "the Provost was desired to advertise for a Master able to teach English Grammatically, which seems was all the English Master was now required to teach, the other Branches originally promised being dropt entirely."<sup>2</sup> So the hard struggle for English went on. Franklin's protest of 1789 did very little good, and in 1810 Dr. John Andrews, provost of the University of Pennsylvania, affirmed that the principal master of English was not called professor, but master; that this work was considered below college grade and subordinate to it. The provost thought that on the death of the then incumbent at the head of the English school it would be abolished altogether.<sup>3</sup>

In the preceding chapter has been described the course of the English program in King's College and Columbia, under the leadership of Samuel Johnson and of William Samuel Johnson. In strange contrast to the "starving" process which well-nigh killed English instruction in the College and Academy of Philadelphia we find the admirable courses offered in 1792 by the president of the New York institution. The writer feels that the main cause of this startling contrast was due to the influence of Provost Smith, a Latinist, in Pennsylvania, as contrasted with the influence of the Johnsons, moderns, in King's College. But an even more important cause may have been the difference in the internal organization of the two institutions. In Columbia the college curriculum was organized by departments on an equal footing. In Pennsylvania there was a philosophical, an English classical, and a mathematical school, each with its almost distinct program, attempting to grow up side by side. The Columbia organization seems to give each department a better opportunity to demonstrate its worth, being essentially a college, rather than a university, organization. Obviously, English had a better chance to raise itself to independent dignity in Columbia. It would be interesting to speculate as to the course in the vernacular in Pennsylvania had Franklin been able to continue his personal supervision.

## 2. THE INFLUENCE OF THE PHILADELPHIA ENGLISH SCHOOL.

Such, then, was the precarious and inglorious career of English in Franklin's school, a career which belied the purpose of the founder and was entirely inconsistent with the success of the first few years. To

<sup>1</sup> Ibid., 23.

<sup>2</sup> Ibid., 27.

<sup>3</sup> Battle, Hist. Univ. N. Car., I, 50.

affirm that this institution, prematurely attempting to raise vernacular instruction to the dignity of the Latin, was an influential leader of that movement may seem foolhardy.

At the outset we face the fact that the Philadelphia Academy stands, in point of time, at the head of a list of private schools which, between 1750 and 1765 in Pennsylvania and adjoining colonies, proposed to teach the English language. This fact, taken alone, may have been merely a coincidence. Indeed, from the viewpoint of chronological priority, Fortesque's school in Philadelphia (1743) itself precedes Franklin's. Only in connection with facts cited below is the Philadelphia Academy to be accorded the position of leadership.

Next may be cited the striking fact that the distinctive phrases describing the central purpose of the new venture—"English Tongue grammatically" and "English as a language"—many times repeated in the published announcements and documents of the Franklin school, were used verbatim, or nearly so, by many schools immediately succeeding it in the colonies. This also, considered alone, may not be significant of leadership. It may be said with justice that in 1743 Fortesque, in Benjamin Franklin's own paper, used the equivalent phrase—"English in a grammatical manner"—and that Waterland in South Carolina, in 1734, used almost the equivalent phrase—"English being taught grammatically."<sup>4</sup> There is no attempt to ascribe to Franklin the authorship of these phrases or of the ideas back of them;<sup>5</sup> but both schools were obscure and private ventures, without the direct advocacy of a powerful publication like Franklin's Philadelphia Gazette. Moreover, the auspices of the Franklin school, warmly supported as it was by such men as Attorney General Francis and various colony officials, with a board of 24 trustees of leading men of the city, were likely to secure all publicity possible in 1750-1760.

The place to look first for the academy's direct influence on other schools is in Philadelphia, its immediate environs, and in towns of close proximity. Within 10 years several other schools in Philadelphia were teaching English grammatically.<sup>7</sup> Three of these were

<sup>4</sup> Pa. G., Dec. 1, 1743.

Charles Hoole, 1860, may have been the inventor of the phrase. He says: "He that would be further instructed how by teaching English more Grammatically, to prepare his Scholars for Latine, let him consult Mr. Poole's English Accidents, and Mr. Wharton's English Grammar; as the best books that I know at present." Bardeen's reprint, 80.

<sup>5</sup> S. Car. G., Nov. 16, 1734.

<sup>6</sup> The comment might also be made that the phrases cited are the natural expressions of any schoolman desiring to emphasize English grammar in his curriculum. This comment has a certain validity; but "English tongue grammatically" and "English as a language" are truly distinctive phrases. The New England schoolmasters employed much more prosaic expressions, such as "according to the Rules of Grammar," "understanding the English Grammar," "learn the English Grammar," and the like. See Chap. II.

<sup>7</sup> In 1759 the number of dwelling houses in Philadelphia was 4,474, indicating a population of between 20,000 and 30,000. R. Proud, Hist. Pa. in N. A., 1770, 279.



established by David James Dove, the first English master of the academy. The first was a girl's school, in 1751, in which English grammar was taught. For devotion to this school and neglect of his duties in the academy Dove was dismissed in 1753.<sup>8</sup> The second was in 1758, when Dove and Riley professed to teach "English Language according to the most exact rules of grammar."<sup>9</sup> The third may have been a continuation of the second, when in 1759 Dove and Williams announced "Grammatical Knowledge of their (the pupils') mother tongue, as is laid down in Greenwood's Grammar."<sup>10</sup> Two years later Dove became master in Germantown Academy, where he taught "English as a Language."<sup>11</sup> Dove had taught English grammar 16 years in England; it might therefore be fairer to attribute the credit for the teaching of English to direct influence from the mother country. There can be little doubt that Dove in these schools was endeavoring to make capital of the popularity he had enjoyed at the academy.

In 1754 another Philadelphia school was projected by one John Jones, "late assistant to Mr. Dove in the Academy."

[He] has opened his new School-House where . . . the English Tongue will be taught . . . to those, whose Parents request it, as a Language, and delivery in the method pursued by that worthy Professor, Mr. Dove when in the Academy, by which his Scholars made such a wonderful Proficiency, and he gained so great a favor deservedly.<sup>12</sup>

Referring to schools like Jones's and Dove's, we have also Franklin's own testimony that the very failure of his plans in the academy spread the instruction of English as a language. He says:

Parents, indeed, despairing of any reformation, withdrew their children, and placed them in private schools, of which several now appeared in the city, professing to teach what had been promised to be taught in the Academy; and they have since flourished and increased by the scholars the Academy might have had, if it had performed its engagements.<sup>13</sup>

Evidence is not lacking that the neighboring colonies were aware of the success of Franklin's school. For example, in 1754, while the English school was still flourishing, an interesting communication appeared in the Maryland Gazette, written by one who signed himself "Philo Merilandicus," to this effect: "On inquiry it has been found that there are (at least) 100 Marylanders in the academy in Philadelphia. . . ." <sup>14</sup> The writer laments the loss to Maryland of £5,000 sterling a year. He says also: "Vast sums are every year transmitted to France, etc., for the Education of Young Gentlemen. . . ." He

<sup>8</sup> Pa. G., Aug. 29, 1751.

<sup>9</sup> Ibid., Jan. 12, 1758.

<sup>10</sup> Ibid., Aug. 9, 1759.

<sup>11</sup> Ibid., Nov. 19, 1761.

<sup>12</sup> Pa. G., Oct. 24, 1754.

<sup>13</sup> Sparks, Franklin's Works, II, 149.

<sup>14</sup> In 1755 the academy had 300 students. Wickersham, Hist. of Ed. in Pa., 62.

expresses a wish to establish a college on the East Shore, and conceives ways and means for keeping within Maryland the money advanced as aforesaid for the use of Pennsylvania.<sup>15</sup> Here is positive evidence that the academy in Philadelphia, which had the distinction of an English program, was attracting attention.

Suggestion to the same effect is found in the will of one James Van Horn, of Dover, East New Jersey, in 1761. He gives all his estate to his sons John and James, "James to be given the best education the Province of Pennsylvania affords, either at the Academy, or Mr. Dove's English School."<sup>16</sup>

If the Philadelphia College and Academy was attracting numerous students from other colonies,<sup>17</sup> there may be found in this fact a motive for the action taken in 1763 by the College of New Jersey, a near rival. President S. Finley in that year announced the opening of an English school as an appendage of the college, with an English program almost identical with the academy's.<sup>18</sup>

The College of New Jersey, which thus seems to have followed the lead of the Philadelphia Academy in establishing an English school, was itself influential in spreading grammatical instruction in the mother tongue. It, too, was a cosmopolitan institution, drawing students from the South, from Maryland and Virginia especially.

The influence of Princeton men who became teachers may be illustrated by the experience of Philip Fithian (Princeton, 1770-1772), who became tutor in the family (plantation school) of the famous Col. Carter, of Westmoreland County, Va. In his *Journal and Letters* we find four entries relating to instruction in grammar. "The Second Son is reading English Grammar;" "Mr. Carter put into my hands for the use of the School *The British Grammar*."<sup>19</sup> Fithian evidently felt the need of renewing this subject, for we find this entry a few days later in his journal: "I read *Pictete*, *The Spectator*, *Lambert*, *History of England*, *English Grammar*, *Arithmetic* and *Magazines* by turns."<sup>20</sup> The final entry perhaps indicates why Fithian was so industrious in teaching Carter's children grammar: "Mr. Carter is a remarkable man in English Grammar."<sup>21</sup>

<sup>15</sup> Letter to Jonas Greene, Md. G., Mar. 21, 1754. Reprinted, Steiner, *Hist. of Ed. in Md.*, 29.

<sup>16</sup> N. Y. M., Mar. 9, 1761; N. J. Arc., XX, 541.

<sup>17</sup> George B. Wood, writing in 1834, attests to the celebrity of the academy. "From this period, 1757, the institution rose rapidly in importance. The extent and liberality of its plan, conjoined with the excellence of its management, secured it the patronage of the neighboring population; and it soon acquired a celebrity which attracted numerous students from distant colonies. From Maryland, Virginia, and the Carolinas it received much support . . . many planters preferred it, for the education of their children, to the schools of England." Wood, *Hist. of Univ. of Pa.*, Pa. Hist. Soc., III, 185.

<sup>18</sup> Pa. J., Nov. 10, 1763; N. J. Arc., XXIV, 266. See Chap. II, p. 27.

<sup>19</sup> Fithian, *Jour. and Let.*, 55, 56.

<sup>20</sup> *Ibid.*, 66.

<sup>21</sup> *Ibid.*, 97.

Robert Cather's School of Elizabeth Town, East New Jersey, in 1762, was modeled on exactly the same English plan as the Philadelphia Academy. He opened a boarding school with a varied curriculum:

as also, Boys to be instructed in the Beauty and Propriety of the English Tongue, which shall be taught as a Language; the best English Authors shall be read and explained; the Art of Rhetoric, or Oratory, shall be taught with Care and Exactness, Specimens of the Boys' Proficiency therein shall be given every Quarter.<sup>22</sup>

This is the exact Philadelphia scheme.

In 1767 a school called the Somerset Academy was founded in Somerset County, Md., whose curriculum also bears a striking resemblance to the Franklin institution. The following reference is found in a letter written by a "Gentleman on his Travels" (Wm. Rind), who had visited the Philadelphia Academy in 1769:

Erected about two years ago, . . . in the county of Somerset, Maryland, . . . a house sixty-two feet in length and twenty feet in breadth; . . . employs two Masters of Liberal Education [who teach] . . . the rudiments of English Grammar, . . . Spelling, . . . writing, . . . Latin and Greek, . . . and various branches of the Arts and Sciences. . . . Great pains are taken to cultivate the Art of Speaking, which is necessary in order to shine in the Senate, at the bar, and in the pulpit.<sup>23</sup>

The last sentence of the foregoing quotation, with its stress upon speaking, is highly suggestive of the Franklin curriculum. That seems to have been the most popular part of Dove's work, Franklin especially commending the excellence of the public programs given by Dove's pupils.

Similar stress is placed upon speaking in several notices of schools included in this section. It may not be out of place to note again that the original "scheme" was drawn up in Philadelphia in 1743, while the city was still under the spell of Whitefield's eloquence. Franklin, himself a modest speaker, may have had in mind the power of Whitefield when he prescribed in his first paragraph that the rector of his school must be a "correct pure Speaker and Writer of the English Tongue," and directed "making Declamations, repeating Speeches and delivering Orations." Indeed, in regard to grammar, his scheme says merely: "The English Language might be taught by Grammar." Perhaps at that time he was not convinced that English could be taught "as a language"; he certainly was so convinced before the proposals and the constitutions appeared in 1749.

The direct influence of the academy spread to a marked degree through the efforts of students who became teachers in other colonies. This is indicated by the evidence of Philo Merilandicus cited above.

<sup>22</sup> Pa. J., Apr. 1, 1762; N. J. Arc., XXIV, 21.

<sup>23</sup> Va. G., Feb. 23, 1769.

Influence spread in this way certainly in the case of Andrew D'Ellicent and Alexander Alexander, who in 1766 announced a school in Charleston, S. C., as follows:

Andrew D'Ellicent and Alexander Alexander, late from the College of Philadelphia, beg leave to inform the Publick that they intend to open a School . . . where will be taught the English, French, Latin and Greek Languages grammatically, likewise writing, etc. . . . Young ladies may be instructed in the English Grammar as to be enabled to speak and write their native tongue with . . . Propriety. Boys who have a taste and talents for Oratory may be taught rhetoric, and to pronounce Oration with due action and diction.<sup>24</sup>

In 1757 a list of all the pupils enrolled in the Philadelphia Academy the preceding year includes the name of one Lindley Murray in the English school.<sup>25</sup> Wood, a University of Pennsylvania professor, in his history of that institution, written in 1834, asserts that he has no doubt that this is the Murray who wrote the famous Murray grammars.<sup>26</sup> Murray, who wrote in England, we know to have been an American. If Wood is correct and Lindley Murray did actually receive his first instruction in grammar at the academy, this in itself would be a strong argument for the direct influence of the institution on later schools and school practices.

There is no intention of exaggerating the influence of Franklin's academy. Probably the schools and schoolmasters did not deliberately follow the academy as a model. It is much more likely that many of them were influenced by the numerous educational writers whose works were widely circulated in America, the very men who moved Franklin to his innovation. Responsive also, as was Franklin, to the growing feeling of restlessness under the Latin curriculum as unsuited to the intensely practical life of the Nation, many of the schoolmen turned instinctively to the mother tongue. A discussion of these broader agencies, which spread the vernacular instruction far more powerfully than did the example of Franklin or of any institution, constitutes the following section.

The history of educational reforms shows that observation and imitation of actual school practices, even more than the study of educational theories, is the unrivaled moving force. To Melancthon's school, to St. Paul's, to Yverdun, to the Boston Latin, to Rugby, to Gary, schoolmen make pilgrimages, either literal or figurative; then they go home to inaugurate these innovations for themselves. There is reason to suppose that this was a common procedure in 1750 to 1775;<sup>27</sup> and the one school, above all others, which in loca-

<sup>24</sup> S. C. G., May 20, 1766.    <sup>25</sup> List printed in Montgomery, *Hist. of U. of P.*, 284.

<sup>26</sup> Wood, *Hist. of U. P.*, 186.

<sup>27</sup> An interesting example of this, of the date we are now considering, and establishing further the influence of the Philadelphia institution is the following: Rev. James Madison was graduated from William and Mary in 1771, and nine years later became President of that college. He is said to have introduced into William and Mary the curriculum of the Philadelphia College and Academy. In 1785 he received the degree of doctor of divinity from the University of Pennsylvania. Montgomery, *op. cit.*, 263.

tion, in point of time, in publicity, in prestige of foundation, was most suited for such leadership was Franklin's English school of 1750. We believe that Robert Proud, in his *History of Pennsylvania in North America*, written between 1770 and 1780, was right in at least one respect when he said: "The College and Academy of Philadelphia . . . is likely . . . to become the most considerable of its kind, perhaps in British America."<sup>28</sup>

### 3. EDUCATIONAL THEORIES SUPPORTING GRAMMAR IN AMERICA UP TO 1775.

Preceding sections presented schools and colleges teaching English grammatically and the Franklin academy as having the right to be considered the first leading secondary school with the English program. Consideration now turns to an analysis of the educational ideas which induced American schools to enlarge upon the few scattered beginnings of grammar in the eighteenth century and to adopt very widely at its close an English program with grammar as its central study.

#### EDUCATIONAL TREATISES IN THE COLONIES.

Several educational treatises widely known in England made their way into the American colonies before 1775. Prominent among these were "Some Thoughts concerning Education," 1639, by John Locke;<sup>29</sup> "British Education," by Thomas Sheridan, 1756;<sup>30</sup> "Observations for Liberal Education," London, 1742, by George Turnbull;<sup>31</sup> "Dialogues Concerning Education," published anonymously, 1745, by James Fordyce;<sup>32</sup> and "Essays on Education, by Milton, Locke, and the Authors of the Spectator," London, 1761 edition, by R. Wynn.<sup>33</sup>

In 1747 Franklin advertised the works of Locke, Turnbull, and Fordyce, and showing that he was himself interested in these books

<sup>28</sup> Proud, *op. cit.*, II, 281.

<sup>29</sup> Advertised, Pa. G., Dec. 8, 1747, by B. Franklin; B. N. L., Sept. 4, 1750; N. Y. M., Sept. 24, 1752; Conn. G., Apr. 12, 1755; Ga. G., Apr. 14, 1763; B. Ch., May 1768, etc.

<sup>30</sup> Advertised, S. C. G. and C. J., Mar. 1, 1763; N. Y. M., Nov. 7, 1763; B. Ch., May 2, 1768; Va. G., June 10, 1773, etc.

The full title of Sheridan's book is "British Education; or, the Source of the Disorders of Great Britain, being an Essay towards proving, that the Immorality, Ignorance, and false Taste, which so generally prevail are the natural and necessary Consequences of the present defective System of Education, with An Attempt to show that a Revival of the Art of Speaking, and the Study of our own Language, might contribute, in a great Measure to the Cure of those Evils." By Thomas Sheridan, A. M., London, 1756 edition.

<sup>31</sup> Advertised, Pa. G., Dec., 3, 1747, by B. Franklin; N. Y. G., Dec. 11, 1753; N. Y. M., June, 1775, etc.

<sup>32</sup> Advertised, Pa. G., Sept. 22, 1747, by B. Franklin; N. Y. G., Nov. 13, 1753, etc.

<sup>33</sup> Advertised, N. Y. M., Sept. 30, 1765; N. Y. G. or W. P. B., Oct. 19, 1761; *ibid.*, Feb. 11, 1771; *ibid.*, Sept. 10, 1769, etc.

he quotes Locke extensively.<sup>34</sup> What is more significant he drew up his plan of English education in exceedingly close conformity to one striking passage in Turnbull. No attempt is made to use the "deadly parallel";<sup>35</sup> but the conclusion is inevitable that Franklin was thoroughly familiar with Turnbull. At any rate, every one of the main parts of the academy's English program is advocated in the same order as in Turnbull's discussion. Both writers believe that grammar, composition, declamation, oratory, and the study of English classics are primarily for the cultivation of "stile," and to cap it all the principal motive of each is regard for the various professions in which the mother tongue is to be used.

#### THE BURDEN OF LEARNING LATIN.

Four more contentions are discernible in the educational treatises which came to America in the eighteenth century.<sup>36</sup> The first of these is the burden of learning Latin. The revolt against the extreme hold of Latin is a very old one, having as its earliest conspicuous champions Comenius, Mulcaster, and Milton. An idea of the unspeakable grind transferred from John Sturm's Gymnasium to the sixteenth-century grammar schools of England may be seen by a glance at Sturm's curriculum. He required seven years to be spent on the acquirement of a "pure Latin style," two to be given to "elegance," and five collegiate years to be passed in learning the art of Latin speech, 14 years, with the ultimate goal of proficiency in writing and speaking the Latin tongue.<sup>37</sup>

Comenius, the Bohemian educational reformer, 1592-1671, voiced one of the earliest protests against Latin instruction like that of Sturm. Comenius, to be sure, retained Latin as the most valuable study, but he would first have the vernacular taught, then a neighboring modern tongue, then Latin, Greek, etc. He advocated as well objective study of the natural world.<sup>38</sup>

Mulcaster, 1582, also raised his protest: "Is it not a marvelous bondage to become servants to one tongue, for learning's sake, the most part of our time . . . whereas we may have the very same treasure in our own tongue, with the gain of most time. . . . I love Rome, but London better; I favor Italy, but England more; . . . I honor the Latin, but I worship the English."<sup>39</sup>

Milton, in 1650, urges: "We do amiss to spend seven or eight years merely in scraping together as much miserable Latin and Greek as

<sup>34</sup> Franklin illustrated his "proposals" by extracts from Milton, Locke, Sheridan, Walker, Rollin, Turnbull, "with some others." In Smyth, *Life and Writings of B. Franklin*, II, 387, Franklin's quotations are given.

<sup>35</sup> See Appendix B. The writer has seen no other suggestion that Franklin followed Turnbull closely.

<sup>36</sup> Nearly all the other writers cited follow Locke very closely.

<sup>37</sup> Summary of Sturm's curriculum. Monroe, *Hist. of Ed.*, 391.

<sup>38</sup> Comenius, *Great Didactic*, Laurie, 115.

<sup>39</sup> *Elementarie*, pt. 1; Quick, *Ed. Ref.*, 300-2.

might be learned otherwise easily and delightfully in one year. . . . These are not matters to be wrung from poor striplings like blood out of the nose or the plucking of untimely fruit." He refers to the prevalent instruction as "those grammatical flats and shallows, where they stuck unreasonably to learn a few words with lamentable construction" and as "that assinine feast of sow-thistles and brambles, which is commonly set before them as all the food and entertainment of their tenderest and most docible age."<sup>40</sup>

The goals to which these early reformers strove were, first, knowledge to be written in the vernacular; second, instruction in reading and writing for the masses, in order that this secular knowledge, like religious knowledge in the Bible, might be made accessible to all.

Before the eighteenth-century agitators began work English was established in its elementary branches in the schools and books in English teaching were widely printed; that is, the two goals of Comenius, Mulcaster, and Milton were attained. Now began the work of a second group of educational reformers, headed by the greatest master of them all, John Locke. They led the attack upon the second-line trenches of Latin and established the principle that for the masses a vernacular education of a secondary grade is equivalent to a Latin education of the same grade for a privileged few. To-day's fight is for the third-line trench and over the question, shall the classics remain as an important part of the curriculum because of the few privileged to attain the highest culture?

The newer leaders, headed by Locke, sound the same note, lamenting the heavy burden of the Latin-grammar program. Locke, in 1693, says:

When I consider what ado is made about learning a little Latin and Greek, how many years are spent in it, I can hardly forbear thinking that the parents of children still live in fear of the schoolmaster's rod. . . . How else is it possible that a child can be chained to the oar seven, eight, or ten of the best years of his life, to get a language or two?<sup>41</sup>

The Tatler of 1710 urges that masters should teach pupils to use English instead of perplexing them with Latin epistles, themes, and verses—

For can anything be more absurd than our way of proceeding; . . . to put tender Wits into the intricate maze of Grammar, and a Latin Grammar; . . . to learn an unknown art by an unknown tongue; . . . to carry them a dark round-about way to let them in at the back door?<sup>42</sup>

Dr. Johnson, Franklin's friend, in the preface of his dictionary, said: "A whole life can not be spent upon syntax and etymology, and even a whole lifetime would not be sufficient."<sup>43</sup>

<sup>40</sup> Wynne, *op. cit.*, 5-8.

<sup>41</sup> Wynne, *op. cit.*, 29; Locke, *Thoughts Concerning Education*.

<sup>42</sup> Tatler, IV., No. 234.

<sup>43</sup> Johnson, *Dict. of Eng. Language*, I, preface, 13.

It may be worth while to dwell upon the influence of the *Spectator* and *Tatler*,<sup>44</sup> because Addison and Steele speak out boldly for English grammar.

Addison and Steele enjoyed popularity on both sides of the Atlantic. Says Steele:

I found . . . the principal defect of our English discipline to lie in the Initiatory part, which, although it needs the greatest care and skill, is usually left to the conduct of those blind guides, Chance and Ignorance. . . . I could furnish you with a catalogue of English books . . . wherein you could not find ten lines together of "common Grammar," which is a necessary consequence of our mismanagement in that province. . . . The liberal Arts and Sciences are all beautiful as the Graces; nor has Grammar, the severe mother of all, so frightful a face of her own; it is the vizard put upon it, that scares children. She is made to speak hard words that, to them, sound like conjuring. Let her talk intelligibly and they will listen to her.

In this, I think . . . we show ourselves true Britons, always overlooking our natural advantages. It has been the practice of the wisest nations to learn their own language by stated rules to avoid the confusion that would follow from leaving it to vulgar use. Our English Tongue . . . is the most determined in its construction, and reducible to the fewest rules.

To speak and write without absurdity the language of one's country is commendable in persons in all stations, and to some indispensably necessary. To this purpose, I would recommend above all things the having a Grammar of our mother tongue first taught in our schools. . . . Where is such grammar to be had? . . . It is our good fortune to have such a Grammar with notes now in the press, to be published next Term.

In a footnote Wynne adds: "This, I suppose, was the English Grammar published by John Brightland,<sup>45</sup> with the approbation of Isaac Bicherstaff, the edition of which was published <sup>46</sup> in 1726." This reference to the Brightland grammar leads to the supposition that Steele was the author.

#### ENGLISH THE LANGUAGE OF DAILY USE.

The second note, frequently found in the treatises on education of the eighteenth century, is that English is the language of daily use. This was the burden of the *Tatler* just cited. Locke also would have grammar learned by those whose main business is with the tongue or pen, but—

it must be the grammar of his own tongue; of the language he uses; . . . It will be a matter of wonder, why young gentlemen are forced to learn the grammar of foreign and dead languages, and are never once told of the grammar of their own tongue. . . . Nor is their own language ever proposed to them as worthy their care and cultivating; though they have daily use of it, and are not

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<sup>44</sup> Franklin undoubtedly drew his first interest in the teaching of English from his close study and imitation of these, as narrated in his autobiography.

<sup>45</sup> *Tatler*, IV, No. 234.

<sup>46</sup> Wynne, *op. cit.*, 177-9.



seldom . . . judged of by their handsome or awkward way of expressing themselves in it." . . . And since 'tis English that an Englishman will have constant use of, that is the language he should chiefly cultivate; . . . to mind what English his pupil speaks or writes is below the dignity of one bred up among Greek and Latin, tho' he have but little of them himself. These are the learned languages, fit only for learned men to meddle with and teach; English is the language of the illiterate vulgar."<sup>a</sup>

A student "ought to study *grammar*, among the other helps of speaking well; but it must be the grammar of his own tongue . . . that he may understand his own country speech nicely and speak it properly; and to this purpose *grammar* is *necessary* but it is the grammar *only of their own proper tongues*."<sup>a</sup>

In 1769, in the Boston Chronicle, Joseph Ward strikes the note of English as of daily value to the masses as follows:

The subscriber has opened an English Grammar School in King Street. . . . The understanding the English Grammar is so necessary for those who have not a Liberal Education, and as it will greatly facilitate the learning any other Language, such a school is said by the Literati to be very much wanted in this town. . . ."

In 1769 Richard Carew asserts:

Whatsoever grace any other language carrieth in verse or prose, in tropes or metaphors, in echoes or agonominations, they may all be lively and exactly represented in ours. Will you have Plato's verse? Read Sir Thomas Smith; The Ionic? Sir Thomas More; Cicero's? Ascham; Varro? Chaucer; Demosthenes? Sir John Cheke . . . Will you read Virgil? Take the Earl of Surrey; Catullus? Shakespeare and Marlowe's fragment; Ovid? Daniel; Lucian? Spencer; Martial? Sir John Davies and others. Will you have all in all for prose and verse? Take the miracle of our age, Sir Phillip Sidney."<sup>a</sup>

We have seen above that Franklin in his "proposals" stressed the idea of "Regard being had for the several Professions for which they (the students) are intended." English is the instrument of trade, of law, pulpit, and Senate Chamber. Locke pointed out that a man is often judged by his skillful or awkward use of his native language. Wynne's books spread the teaching of Locke, Milton, and Steele in America, and Turnbull follows Milton and Locke with almost the identical argument.

Milton said:

Tho a linguist should pride himself to have all the tongues Babel cleft the world into: yet if he had not studied the solid things in them as well as words and lexicons, he were nothing so much to be estimated a learned man, as any yeoman or tradesman competently wise in his own dialect only."<sup>a</sup>

<sup>a</sup> Wynne, op. cit., 60-2.

<sup>a</sup> Sparks, op cit., II, 137-138. Cited by Franklin in his "proposals."

<sup>a</sup> Footnote in Franklin's "Observations," Sparks, op. cit.; also Wynne, 252.

<sup>a</sup> B. G., Apr. 20, 1769.

<sup>a</sup> Quoted, Watson, Beginnings, 11, from "Elizabethan Critical Essays," Gregory Smith, 2, 293.

<sup>a</sup> Wynne, op. cit., 4, 5.

Locke expressed the obverse idea that "nothing can be more ridiculous than that a father should waste his own money and his son's time in setting him to learn the Roman language, when at the same time he designs him for a trade."<sup>55</sup> Turnbull follows in the same vein: "Few think their children qualified for a trade till they have been whipped at a Latin School for five or six years to learn a little of that which they are obliged to forget."<sup>56</sup>

The demand for practical instruction is most vigorously demanded by Turnbull as follows:

Can any one hesitate to choose whether that his son should early be acquainted with men, manners, and things, or that he should early be a profound linguist. . . . What man of sense . . . would not rather have his son at fourteen tolerably skilled in geography and history, acquainted with the true method of unravelling nature, . . . and able to express truths of these classes with propriety and taste, in his own language . . . though he know little Latin?<sup>57</sup>

Sheridan, in a *reductio ad absurdum* upon the utility of classical learning, tells of the "ingenious and learned translator of Milton's *Paradise Lost* . . . now starving on a poor curacy in a remote part of the country. And shall many fathers expect that their sons will be able to outdo him in learning, or have nobler opportunities of displaying it?"<sup>58</sup>

Thomas Byerley, author of the second grammar published in America, 1779, in the same year set up a grammar school in New York. In his elaborate advertisements, after setting forth the necessity of giving up the study of Latin for the purpose of learning English grammar, he quotes Locke in the passage just cited above on the futility of making a boy learn the Roman language when he is at the same time designed for a trade.<sup>57</sup>

Even more vigorously does William Watson speak of his school in Charleston, S. C., 1769, "for the Instruction of Youth in the English Language . . . grammatically. . . . The utility of such an undertaking is too obvious to need any Recommendation." He goes on to say that Latin and Greek are of "little consequence to those who spend their days in rural, mercantile, or mechanical Employments." He dwells on the inutility of spending "six or seven years in the study of dead languages. . . . If knowledge can be obtained . . . without the dry and tedious process . . . it may not be a useless attempt. . . . Such an attempt as this the subscriber humbly presumes to make."<sup>58</sup>

One of the earliest notices of an English school is William Gough's, a plantation school near Charleston, in 1742. "William Gough

<sup>55</sup> *Ibid.*, 46.

<sup>56</sup> Turnbull, *op. cit.*, 4.

<sup>57</sup> Turnbull, *op. cit.*, 260.

<sup>58</sup> Sheridan, *op. cit.*, 222-3.

<sup>59</sup> N. Y. G. and W. M., Aug. 23, 1773.

<sup>60</sup> S. C. G., June 24, 1769.

gives notice that he is now settled entirely at the Plantation of Mr. James Taylor, and continues to teach the several most useful branches of learning (in the English Tongue) according to the London Method, whereby Youth may be qualified for Business by land or Sea."<sup>59</sup>

#### THE IMPORTANCE OF STANDARDIZING AND PRESERVING THE ENGLISH TONGUE.

We have pointed out that the plans for Franklin's academy matured while Philadelphia, and, indeed, the colonies at large, were under the influence of Whitefield's oratory. The emphasis of the Philadelphia program upon oral English may have received its immediate inspiration from that source. But there was a far-reaching appeal for public speaking of greater significance than the inspiration of any one man. This larger appeal runs through the educational treatises which both in England and in America led the eighteenth-century movement for the vernacular. Indeed, the discussion which follows shows that the movement to place vernacular on a par with Latin found its early strength in two correlated arguments: First, that the cultivation of a style for pure speech would assist in formulating, standardizing, and preserving the English tongue; second, that in the new world, with its conglomeration of tongues, the schools must make an effort to keep the vernacular free from the influence of other languages and to establish English as the standard language of the new land.

A pretentious elaboration of the first of these arguments is the treatise of Thomas Sheridan. His large volume of 534 pages, dedicated to the Earl of Chesterfield, prime minister and famous orator, develops the thesis that a "Revival of the Art of Speaking, and the study of our own Language, might contribute to the Cure of that . . . Ignorance and False Taste, which so generally prevail."<sup>60</sup>

In his address to Lord Chesterfield, Sheridan says: "The scheme is: A design to revive the long-lost art of oratory and to correct, ascertain, and fix the English Language."<sup>61</sup> In almost every chapter Sheridan acknowledges his indebtedness to Milton, Swift, Locke, and Addison. Out of the writings of these men Sheridan has judiciously extracted those passages which champion the vernacular, especially oral instruction in it.

Two postulates underlie Sheridan's argument: First, the causes which stressed Latin and Greek dedicated so vast a portion of time to

<sup>59</sup> S. C. G., Feb. 13, 1742.

Gough does not advertise grammar. "Reading, Writing, and Arithmetic in all its Branches" are his principal subjects. Before 1750, and, indeed in all the advertisements up to 1775, arithmetic in all its branches, as an intensively practical subject, appears almost invariably. The appeal of, immediate practicality, found effective in arithmetic, gradually creeps into the announcements of English speaking and grammar.

<sup>60</sup> Sheridan, op. cit., title page.

<sup>61</sup> Ibid., preface, VI.

the acquisition of skill in those languages and at the same time the pupil's own was totally neglected and no longer of any force.

The learned languages are no longer the sole repositories of knowledge: . . . the English is become an universal magazine . . . of all wisdom. . . . Add to this, that we have many excellent writers of our own, besides, the language itself has been so much enlarged and improved. . . . To state the account in short between our forefathers and us, they shewed great wisdom and good sense in making the learned languages the chief study in their days (time of Reformation) because, however round about the way, knowledge was then to be acquired in none other; and because our own, then poor and uncultivated, could be in no other way enriched or refined. . . .<sup>a</sup>

English is the language most universally read by Englishmen.<sup>b</sup>

The second postulate is that as yet, say in 1750, English had no fixed standard. Sheridan complains of general "bad taste which is allowed to prevail," both in writing and speaking, on the part of public men, of "the amazing number of wretched pamphlets," and of "those heaps of trash, which are constantly exposed to sale in the windows of booksellers, like unripe fruit, greedily devoured by green-sickness appetites, and which fill the mind with crudities." Quoting Steele, Sheridan says: "I would engage to furnish you with a catalogue of English books . . . within seven years past . . . wherein you could not find ten lines together of common grammar or of common sense."<sup>c</sup>

Upon these two postulates Sheridan constructs his plea that oratory fixed the standards of the ancient languages and perpetuated them; that the other nations of Europe—

the French, Italians, Spaniards, etc., . . . after having enriched and illustrated their several languages by the aids and lights borrowed from the Greek and Roman, employed the utmost industry to refine, correct, and ascertain (make certain) them by fixed and stated rules. . . . The English alone left theirs to the power of chance or caprice; insomuch that it is within a few months that even a dictionary has been produced here.<sup>d</sup> Whilst in all the others many excellent grammars and dictionaries have long since been published.<sup>e</sup>

Both the ancients and all moderns but the English studied their own languages with respect to what is pure and correct in style and in pronunciation.

What shall we say to our practice so contrary to that of polished nations . . . (we) who take great pains in studying all languages but our own? Who are very nice and curious in our choice of preceptors for the ancient and modern tongues, yet suffer our children to be vitiated in the very first principles of their own. Is it because that the knowledge of our language is so easily acquired, that it can scarce be missed? This surely can not be said when it is universally

<sup>a</sup> Ibid., 217-9.

<sup>b</sup> Ibid., 228.

<sup>c</sup> Ibid., 227, Tatler IV, No. 230.

<sup>d</sup> This refers to Johnson's Dictionary and fixes the date for Sheridan's first edition.

<sup>e</sup> Ibid., 212-3.

allowed that there are hardly any who speak or write it correctly. Is it because we have less use for it than for any other?"

When we consider that after Greek and Roman languages were brought to a standard of perfection, when their youth had the advantage of established invariable rules upon which to found their knowledge; of able preceptors to instruct and guide them; of the noblest examples and most perfect patterns for their instruction; . . . shall we who have none of their advantages, without any pains or application expect to have a competent knowledge of one, which in its present state is far more difficult to be learned than theirs? This omission in our education . . . is wonderful."

And the supreme means of establishing this uniformity of fixing and ascertaining the tongue is, according to Sheridan, the fostering of the "ancient art of oratory"; by this means "our Shakespeare and our Milton" will not be suffered "to become two or three centuries hence what Chaucer is at present, the study of only a few poring antiquarians, and in an age or two more victims of bookworms." Sheridan completes his argument with the curious fallacy that the orators of a nation are its sound philosophers; that they perpetuate a language; that upon them and their art depends the safety of their nations.<sup>69</sup>

It is highly significant that Sheridan dedicated his work to Chesterfield, an eloquent orator of his day. Moreover, Chesterfield had made a public proposal to the provost and fellows of the University of Dublin, while he was viceroy of Ireland, "for the endowment of proper lectures and exercises in the Art of Reading and Speaking."<sup>70</sup>

The project failed. In his preface Sheridan comments upon an innovation recently made in Eaton by Barnard and at Rugby by Markham, by which, "amongst many other good customs . . . pronunciation and the art of speaking are now made effectual points."<sup>71</sup> This appears to indicate that the English schools were not many years in advance of the American.

Only one of Sheridan's arguments is likely to have had a strong appeal in America. Americans had no literature of their own; they were not primarily interested in the establishment of a standard style of literature; the appeal for the preservation of the language of Shakespeare and Milton was remote from the interests of the new land. The main interest of Americans would lie in the substance of Sheridan's appeal, not in the reasons for it. He wished to teach oratory; he eulogized public speech; he lauded correct pronunciation and fluent oral address. This would appeal especially to Americans, with their democratic town meetings, their traditions of pulpit leadership, and their necessity of oral communication in general. Moreover,

<sup>69</sup> Sheridan, *op. cit.*, 195-196.

<sup>70</sup> *Ibid.*, 196-7.

<sup>71</sup> *Ibid.*, XXIX.

<sup>72</sup> *Ibid.*, preface, XVII.

<sup>73</sup> *Ibid.*, XIV.

statesmanship in the local governments and provincial councils was the goal of parents for their children. The profession of the law was increasing in popularity, and in any and all lines of activity effective speech was looked upon as a prime requisite.

Private schoolmasters were not slow to realize the popularity of this appeal. Advertisements of the day are replete with it. For example, "The boys learning oratory make orations every fortnight";<sup>72</sup> "I intend teaching the English language with proper accent and emphasis";<sup>73</sup> "parents . . . may depend on having their children . . . diligently instructed in grammatical English, with due attention to emphasis, pause, cadence, and puerile declamation";<sup>74</sup> "weekly exercise of reading the English authors with propriety and grace";<sup>75</sup> "the Boys, as soon as they are capable to be exercised in pronouncing Orations";<sup>76</sup> "nor will the true pronounciation, the proper stops, emphasis, accent and quantity be neglected";<sup>77</sup> "Pains will be taken to form them early for Public Speaking";<sup>78</sup> "Great pains are taken to cultivate the Art of Public Speaking, which is necessary in order to shine in the Senate, at the bar, or in the pulpit";<sup>79</sup> boys who have "a taste and talents for Oratory may be taught rhetoric and to pronounce with due action and diction."<sup>80</sup> The first advertisement of King's College (Columbia), 1754, added to the learned languages "reasoning, writing, and speaking eloquently."<sup>81</sup>

An exact expression of this idea, that neglect of vernacular grammar caused incorrect speech, which had been taken verbatim from Sheridan or paraphrased from him, is found in the announcement of William Johnson, who set up an English grammar school on Union Street, Charleston, S. C., in 1767. He says:

It is a common, but too well-grounded complaint that a grammatical study of our own language seldom makes any part of the ordinary method of instructing youth. . . . To this neglect may justly be attributed the great incorrectness of speech, observable amongst almost all ranks of people . . . to remedy which . . . is the point the proposer has in view.<sup>82</sup>

There was a growing realization that the Nation ought to have one common language; that the best national life could not obtain if English, German, French, Dutch, Scandinavian languages—not to mention others—should each remain the speech of a portion of the people. Moreover, the mingling of so many tongues must certainly result in

<sup>72</sup> Joseph Garner, Pa. G., July 3, 1765.

<sup>73</sup> Mary McAllister, Pa. G., June 4, 1767.

<sup>74</sup> John Hefferman, Pa. G., Sept. 14, 1774.

<sup>75</sup> Witherspoon, Princeton, N. J., Pa. J., Mar. 2, 1769.

<sup>76</sup> Jacob Giles, Mount Pleasant, Md., Md. G., July 19, 1765.

<sup>77</sup> Grammaticaster, Pa. G., Oct. 20, 1767.

<sup>78</sup> James Thompson, Charleston, S. C., S. C. G., Dec. 10, 1772.

<sup>79</sup> Somerset Academy, Maryland, Va. G., Feb. 23, 1769.

<sup>80</sup> Andrew D'Ellicent, Charlestown, S. C., S. C. G., May 20, 1766.

<sup>81</sup> N. Y. G. and W. P. B., May 31, 1754.

<sup>82</sup> S. C. G., June 15, 1767.

the corruption of them all, and especially of the dominant one, the English. It is certain that this feeling was present in the minds of the authorities in the College and Academy of Philadelphia, inasmuch as Pennsylvania had an exceedingly composite population. In 1758 Provost Smith, the chief Latinist against whom Franklin inveighs, wrote an article, which appeared in the *American Magazine* in October of that year, entitled "Account of the College and Academy of Philadelphia." He says:

*Oratory, correct Speaking and Writing the Mother Tongue* is a branch of education too much neglected in all our *English* Seminaries, as is often visible in the public performance of some of our most learned men. But in the circumstances of this province, such a neglect would have been still more inexcusable than in any other part of the British dominions. For we are so great a mixture of people, from almost all corners of the world, necessarily speaking a variety of languages and dialects, that true pronunciation and writing of our own language might soon be lost among us without such a previous care to preserve in the rising generations.<sup>82</sup>

A schoolmaster of New York, advertising an English grammar school in the consistory room of the French church, says: "The English Grammar, . . . the learning of it being indispensably necessary in an English country, I intend to teach to all my scholars."<sup>84</sup>

Benjamin Franklin himself voices this appeal;

Why should you . . . leave it (America) to be taken by foreigners of all nations and languages, who by their numbers may drown and stifle the English which otherwise would probably become in the course of two centuries the most extensive language in the world. . . .<sup>85</sup>

It appears that we have now reached the heart of the primary cause which forwarded the study of English grammar. A movement, in the words of Sheridan cited above, "to refine, correct, and ascertain (make certain) the English language by fixed and stated rules" is essentially grammatical. Samuel Johnson's dictionary, and others, standardized English diction. Sheridan spoke the truth when he said that the English needed "the advantage of established and invariable rules" upon which to establish and perpetuate the language.

The very prevalence of illiteracy in the public and private speech of the eighteenth century demanded the study of grammar. Granted that the mother tongue was more useful and less laborious than Latin, granted that it was desirable to speak and write well, granted that Dilworth, Greenwood, Lowth, and the *British Grammar* had reduced English to "established and invariable rules," it seems to have followed with irresistible logic that the schools must teach English

<sup>82</sup> Montgomery, op. cit., 520-9.

<sup>84</sup> N. Y. G. and W. P. B., June 5, 1766.

<sup>85</sup> Letter to Wm. Strahan, Passy, Aug. 19, 1785. Sparks, op. cit., II, 131.

grammar. Hence we find that every one of the schoolmasters cited in a previous paragraph as teaching oratory also taught grammar. Are we not safe, then, in saying that English grammar came into the curriculum primarily as a result of the popularity of the teaching of public speaking and secondarily as the result of a desire to make rising generations familiar with "fixed and stated rules"?

As a corollary, the study of English as a language came as an antidote for the variety of languages spoken by early settlers, especially in the middle colonies. It is perhaps more accurate to say that it was an attempt to keep English the dominant language of the new continent.

#### HIGHER EDUCATION FOR THE MASSES IN 1650 AND IN 1750.

Massachusetts and her sister colonies inherited the idea of education for leadership. The grammar schools of England, prototypes of the higher schools set up in New England by the laws of 1647 and 1650, were planned distinctly for an intellectual, educational, and political aristocracy. The society from which the first settlers came was distinctly a class society. Many of the Pilgrim Fathers and their immediate successors from England came from the smaller landed gentry in the mother country. Moreover, the first settlers, although apparently possessing a democratic form of government, characterized in local affairs by the town meeting, were in reality controlled by a relatively small group of leaders. These men, as we have seen, were clergymen, but their authority and influence extended over almost every aspect of life. To perpetuate this leadership Harvard College was founded only eight years after the settling of Massachusetts Bay. To the college, with its inherited curriculum of the classics, must be sent the more promising youth, prepared either under the private tutorship of some clergyman or in a suitable school. This is the origin of the grammar school in America.

Given a grammar school, some means must be provided for the preliminary education considered necessary for entrance. This was provided either by dame schools or by the reading schools or by grammar schools. Along with this idea of higher education for leadership there existed a second idea. This was that all citizens must be taught to read the Scriptures and to understand the capital laws of the country. The idea of universal education grew out of a combination of these two purposes. Briefly, universal education in 1650 meant universal ability to read, possibly to write and cipher, and widespread opportunity to train leaders.

By the middle of the next century a somewhat different idea of universal education was dawning. Various causes had reduced the importance of religious leaders. The rough life of the new continent



had brought out native qualities of leadership, undeveloped by education. The ancient classics did not hew the forests, blaze pathways into the wilderness, nor fight back Indians. A Benjamin Franklin, forced at 13 to forego the higher schools of Boston, by sheer native merit had made himself an influential man. Many lesser Franklins had raised themselves in various settlements. Just as on the American frontiers of the early nineteenth century a vigorous and robust democracy seemed to produce and develop Jacksons and Lincolns, so 100 years earlier kindred causes were at work in New York, Pennsylvania, Maryland, and the rest. No longer did it count primarily what a man knew. What he could do was far more important. In short, after 1650, 100 years of frontier life had demonstrated that suitable leaders were forthcoming in all aspects of life, except possibly the ministry, irrespective of a classical education.

If this be true, when the frontiersmen of the eighteenth century found themselves victors in the first severe struggle with privations and established in somewhat settled communities, they began again to think of education.<sup>86</sup> Their uncouth manners and dress were like their intellectual life and their speech—strong, but coarse. A desire for refinement grew apace, if not for themselves, at least for their children. In addition, new professions and occupations came into prominence as the communities became more stable. All these newer professions were the outgrowth of the new country itself, and, like the needs which called them forth, they were practical, everyday man-to-man occupations. Still further, as always in a new land, statesmanship offered an attractive field.

All of these causes had grown out of the soil. Unschooled men controlled public opinion. This type of society, living intensely in the present, both ignorant and scornful of the past, craved an education that would furnish direct help in everyday life. A vernacular education of a higher order than reading and writing, including the "practical branches of mathematics," the modern languages, history, geography, and, above all, a mastery of the English tongue, was the outcome. In short, the ideal of universal education retained in 1750 its central idea of 1650—equal opportunity for all; but there had come in a noteworthy enlargement of it. In 1750 no American was predestined for a high rank in life; out of the masses themselves were to come the leaders; a practical education for all was to open the way. On the crest of this wave the mother tongue was carried to the foremost place in American education.

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<sup>86</sup> Franklin, *Autobiography*, 177.

## SUMMARY AND CONCLUSION.

Several lines of investigation have been advanced to enable us to answer the questions: When, where, why, and by whom English grammar made its first appearance in the curricula of American schools. Conclusions reached are as follows:

1. Textbooks in English grammar do not seem to have been imported until about 1750. Dilworth's was published in England in 1740 and had its first American reprint in 1747.<sup>87</sup>

Dilworth's was introduced primarily as a speller. After 1750 there is considerable evidence that Greenwood's and several other British grammars made their way into the colonies.

2. There were at least two grammars written and published in America before the Revolution—Johnson's and Byerley's. Considering the rush of American texts in grammar after 1784,<sup>88</sup> this early scarcity is strong negative evidence to the effect that attention to grammar was relatively insignificant before the appearance of Webster's first book in 1784. In addition, seven grammars by English authors were reprinted in America before 1784. Our estimate places the number of texts before Webster's, both native and imported, at 10. Of these Dilworth's was the only one available for the schools in large numbers. Dilworth's "New Guide," although primarily a speller, deserves the name of the first American textbook in English grammar.

3. A respectable number of private schools, of which we have mentioned 60, some of them called English grammar schools, were offering courses in "English, as a language" by 1775. These schools began to appear before 1750; they were most numerous in the middle colonies, in the regions neighboring to Philadelphia Academy, where Franklin's program of the vernacular struck a plane never reached before. The New England colonies, with the classics more firmly intrenched, resisted the innovation for two decades after the middle colonies had adopted it.

4. A careful consideration of Franklin's plan leads to the conclusion that this English school, preceding any general importation or publication in America of textbooks in grammar, deserves the honor of setting a positive example of a full vernacular program of secondary grade and of being imitated by masters tired of the old type of schools. Therefore the year 1750 is selected as the date when the higher branches of the vernacular, including grammar, entered seriously into American education. To Benjamin Franklin, in this, as in many other respects, America owes a debt of gratitude. As his experiments in science antedated by decades general school instruction in

<sup>87</sup> Wickersham, in Pennsylvania, is in error in assigning this date as 1757. Wickersham, *Hist. of Ed. in Pa.*, 197.

<sup>88</sup> See Chap. IV, p. 80.

them, so his experiment in vernacular education was more serviceable as an example and a model than as an actual accomplishment.

5. Representative curricula of colleges and secondary schools showing the earliest appearances of grammar are in accord with the inferences reached above. Before 1750 curricula do not show grammar. After 1750 to 1790 first, private schools; second, colleges; third, public schools, seem to have followed Franklin's lead. In fact, the colonies effected the independence of their schools and colleges from the exclusive hold of the classics contemporaneously with their political independence.<sup>89</sup> The latter separation was itself not a sharp breaking off; similarly the struggle for the supremacy of the vernacular as the supreme study in the schools was long protracted. The traditions of Latinized instruction, which almost routed Franklin's English program, although they could no longer keep the vernacular in the background throughout the Nation at large, now did the next best thing—they Latinized the methods of teaching English grammar. To a discussion of this Latinizing process in methods we now turn. If the entrance of grammar was an arduous struggle, its emancipation from Latin methods was little short of a titanic one.

6. In answer, then, to the question, When? the answer is 1750, with due reservation for a few obscure earlier efforts. Where? In the middle colonies, headed by Pennsylvania. Why? As the core study of an English program to supplant the classical program for students fitting for practical life. By whom? By Hugh Jones, the first American grammarian; by Waterland, who first taught grammar in an American school; by Franklin, who projected the model English program; by William Samuel Johnson, first president of Columbia, the first American to write a grammar published in America and the first college official to put English on a par with the classics in a college curriculum.

This is a far cry from the credit which has hitherto been awarded to Noah Webster and New England.

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<sup>89</sup> Brown in his "Making of Our Middle Schools" states that the growth of nationalism and national literature had little effect on the schools; that "it took the Romantic Movement and the American and French Revolutions to give the mother tongue an assured position in the program of instruction." *Mid. Sch.*, 188. To the present writer this appears to be only a part of the truth; it is possibly a *post hoc ergo propter hoc*. It seems more accurate to say that in America all revolutions, political, educational, and possibly religious, were largely due to the same fundamental causes. In each there is revolt against outside authority, revolt against established traditions, and a determination that the individual and the nation have a right to live, not in the past but in the future, a vital, active, aggressive life.

## Chapter IV.

### THE RAPID RISE OF GRAMMAR AFTER 1775.

The period immediately after the Revolution marks the well-nigh universal adoption of English into the curricula of American schools. Earlier sections have indicated that the time was ripe. Many successful experiments had been made in private schools; the Latin curriculum, with its apparent unfitness for the intensely practical life of the new continent, was becoming more and more unpopular; for a considerable number of years colleges had been teaching grammar, composition, and oratory. In fine, irrespective of the Revolution, the time had arrived when a rapid spread of the subject was to be expected. And just as the new national life of England in the sixteenth century, with the accompanying pride in its self-sufficiency, brought forth a vigorous demand for the vernacular, so the national independence of America cooperated powerfully with other causes in transferring generally to the public schools the higher branches of the vernacular. The fact is that increased attention to the English language is the most significant change that occurred in the curricula of the schools after the States began to recover from the turmoil and disruption of war.

#### 1. THE LEGISLATIVE RECOGNITION OF GRAMMAR.

The entire history of education in New England up to the end of the eighteenth century seems to have been preparing the way for the laws which, shortly after the Revolution, placed English in the curriculum and almost, if not quite, on a par with Latin. The Latin curriculum especially was increasingly unpopular. Massachusetts, Connecticut, and New Hampshire each passed a series of laws with increasing fines for failure to keep open the prescribed schools,<sup>90</sup> indicating a failure of school spirit in New England.<sup>91</sup> This was referred

<sup>90</sup> In 1647 Massachusetts levied a fine of £5 (Rec. Co. Mass. Bay, II, 203); in 1671 the fine was increased to £10 (*ibid.*, IV, second vol., 486); in 1683 towns of 200 families were fined £20 (*ibid.*, V, 414); in 1692 the fine for failure to keep an elementary school was increased to £10, but the penalty for a grammar school was not altered (Acts and Res. Pro. Mass. Bay, I, 63); in 1701 the fine was imposed on towns proportionally for the time they were delinquent (*ibid.*, 470); and in 1718 the fine was increased to £20 for towns of 150 families, £40 for towns of 200 families and £50 for towns of 250 families (*ibid.*, II, 100).

The series of increasing fines in Connecticut begins in 1650 (Rec. Col. Conn., I, 521) and continues in 1677 (*ibid.*, II, 307-8), in 1678 (*ibid.*, III, 9), and 1700 (*ibid.*, IV, 331). For New Hampshire see Laws of New Hampshire, Prov. Period, I, 561, 337, 358.

<sup>91</sup> Martin, *Evolution of Mass. Sch. Sys.*, 85.

to in the election sermon of 1762 by Rev. Thomas Shephard, in which he laments especially the decay of the Latin schools preparatory for Harvard.<sup>92</sup> While it is true that some of these laws fined towns for failing to support English schools, the main inference is that the Latin schools, set up under the early laws by a university generation, were too advanced for primitive communities successfully to maintain in operation.

This being the case, many towns found that the best way to comply with the requirements for both Latin and elementary schools was to combine them; that is, to provide a schoolmaster qualified to give instruction in both the classics and the elementary branches of the vernacular. Records of so-called grammar schools in many towns indicate that this combination was effected. For example, Salem in 1677 "agreed with Mr. Eppes to teach all such scholars . . . in y<sup>e</sup> English, Latin and Greek Tongue";<sup>93</sup> Nearly 100 years later, in 1752, the same town found it necessary to vote that each of the boys "who go to the grammar school must study Latin as well as read and write and cypher."<sup>94</sup> In 1691 Cambridge voted to engage a schoolmaster "to teach both latten and english and to write and sipher,"<sup>95</sup> and in 1679 Watertown agreed with Richard Norcros to teach for three months only "lattin schollurs and writturs . . . and the other 8 munths . . . both lattin and inglish schollurs."<sup>96</sup> Other towns showing the combination of Latin and English schools were Dedham, 1667;<sup>97</sup> Plymouth, 1725;<sup>98</sup> and Braintree, 1690, which provided

<sup>92</sup> Felt, *Ann. of Salem*, 433.

<sup>93</sup> Relation between the Latin and the English program is interestingly shown in the history of the schools of Salem. In 1667 records of the town show one school for both branches (Felt, *op. cit.*, 434); in 1713 there were separate schools called the English and the Latin schools (*ibid.*, 442); in 1743 the town voted to combine the two under a master and an usher (*ibid.*, 447); this act was revoked three years later, 1746 (*ibid.*). In 1752 the town was compelled to justify the existence of a Latin-grammar school by a special act requiring that every boy, a pupil there, must study Latin as well as reading, writing, and arithmetic (*ibid.*, 448). In 1796, as a natural consequence of the unpopularity of Latin manifested in the preceding order, for the first time the records show the English master made a peer of the Latin master both in title and salary. The town voted that each English master have a salary of £150 and "find ink" and that the Latin master have £130 (*ibid.*, 456). In 1801 notice is published that writing, arithmetic, English grammar, composition, and geography are to be taught in the grammar school besides Latin and Greek (*ibid.*, 458). In other words, the Latin-grammar school is now made over into an English school, with the classics secondary. It is curious to find that in Salem English grammar was not added to the curricula of the English schools, although, as we have seen, it was added to the grammar school in 1801. In 1816 this provision was made also for the English schools to supply "a grammatical acquaintance with their native tongue" (*ibid.*, 464), and finally, in 1827, the Latin and the English high schools of the town appear to be on a par (*ibid.*, 474). This struggle of the two programs in Salem is suggestive of what may have taken place in many other towns in the course of 150 years.

<sup>94</sup> *Ibid.*, 448.

<sup>95</sup> *Rec. Town Cambridge, 1630-1703*, II, 296.

<sup>96</sup> *Watertown Rec.*, I, 137.

<sup>97</sup> *Rec. Town Dedham, 1659-73*, 133.

<sup>98</sup> *Rec. Town Plymouth, II*, 232.

"Master to be agreed with as will be willing to Teach english as well as Latten, and also to Teach wrighting and Cyphering." "

Both the legislative efforts to compel towns to maintain Latin schools and the efforts of the towns themselves to stress the vernacular rather than the Latin indicate a leaning toward the State laws which, in the decades immediately following the Revolution, gave English an equal legal standing with the classics. These laws may be said to fructify the tendencies of the previous 150 years. The makers of the Massachusetts law of 1789 and corresponding laws of other States, which will be cited, realized that a renewal of educational enthusiasm must center around the national tongue, eloquent testimony to the fact that the study of English "as a language" had advanced very rapidly since its first feeble beginnings.

In 1789 Massachusetts required that "every town . . . containing two hundred families . . . shall be provided with a grammar school-master . . . well instructed in the Latin, Greek and English Languages." This school was to be kept for 12 months. Every town of 150 families was to keep a similar school six months; every town of 100 families, an English school for 12 months; every town of 50 families, an English school for six months; that is, "every town . . . containing fifty families . . . shall be provided with a schoolmaster . . . to teach children to read and write and to instruct them in the English language, as well as in arithmetic, orthography, and decent behavior."<sup>1</sup> Moreover, the statute allows selectmen to maintain mixed schools if they prefer. This, for example, is what Braintree did in 1790.<sup>2</sup>

Martin points out that by this act 120 towns out of 270 in Massachusetts were relieved of the necessity of keeping a Latin school.<sup>3</sup> In 1825 Massachusetts relieved all towns of less than 5,000 inhabitants of the Latin school.<sup>4</sup> In short, between 1789 and 1825 compulsory Latin-grammar education may be said to have passed; English schools, with the English curriculum, including English grammar, had been substituted.

Boston, pursuant to the law of 1789, completely reorganized her schools. A manuscript copy of "The System of Public Education," bearing the signature of John Scollay, chairman of the board of selectmen, under date December 1, 1789, was in the possession of Jenks when he wrote his "Sketch of the Boston Latin School." This manuscript indicates how prominent a place was assigned to the various branches of the vernacular in the Boston schools. The center of the system was a classical grammar school, for entrance to which two

<sup>2</sup> Braintree Town Rec., 1640-1693, 598.

<sup>1</sup> Perpet. Laws of Com. Mass., 1799, II, 39.

<sup>3</sup> Braintree Town Rec., 1640-1793, 598.

<sup>4</sup> Martin, *Ev. of Mass. Sch. Sys.*, 85.

<sup>5</sup> Laws of Com. of Mass., X, 558.

prerequisites are indicated. The boy must have reached the age of 10 years and must have been "previously well instructed in English Grammar." In addition, there were three writing schools and three reading schools, in which children of both sexes were to be taught to "spell, accent, and read both prose and poetry, and also be instructed in English Grammar and Composition." In the reading schools textbooks include the Holy Bible, Webster's Spelling Book, The Young Ladies Accidence (Caleb Bingham's elementary grammar), and Webster's American Selections. It is also ordered that "the upper Class in the Reading Schools be instructed in Epistolary Writing and other Composition."<sup>6</sup>

It is not asserted here that the Massachusetts law of 1789 made English grammar compulsory,<sup>6</sup> but that this law, as those of several other States, was enacted in response to a demand for increased attention to vernacular instruction. In Massachusetts English grammar was specified in the law of 1835.<sup>7</sup>

The Vermont laws of 1797 and 1810, while they do not mention grammar, do nevertheless stress the vernacular.<sup>8</sup> Virginia in 1796 enacted a similar statute,<sup>9</sup> and Delaware, in 1796, defines a "good English Education," prescribing "the English language, arithmetic, and other such branches of knowledge as are most useful and necessary in completing a good English education."<sup>10</sup> The regents of the University of the State of New York, in 1793, in a report to the legislature say: "We can not help suggesting . . . the numerous advantages that would accrue . . . from the institution of schools . . . for reading their native tongue with propriety . . . writing . . . arithmetic. . . ."<sup>11</sup> The ultimate effect of these laws was, of course, to stress grammar together with the other "senior branches"<sup>12</sup> of English. However, the effect of the universal turning to the vernacular, as it bore particularly upon grammar, may be seen better in certain State laws contemporary with the Massachusetts law which specifically mention the subject.

The first State legislation to speak definitely of grammar appears to have been the New York law of 1797, which provided "for maintaining one or more free schools in the city of New York, in which Scholars shall be instructed in the English Language, or be taught reading, writing, the English grammar, arithmetic, mathematics, and

<sup>6</sup> Jenks, *Cat. and His. Sketch Boston Latin School*, 286; original document printed in full.

<sup>7</sup> Corey makes this mistake. *Hist. Malden*, 631.

<sup>8</sup> *Rev. Stat. Mass.*, chap. 23, sec. 1.

<sup>9</sup> *Laws State Vt.*, Wright, 1808, I, 181; *ibid.*, Fay-Davidson and Burt, 1817, III, 236.

<sup>10</sup> *Stat. at Large of Va.*, Shepard, 1835, III, 5.

<sup>11</sup> *Laws State Delaware*, S. and J. Adams, 1797, II, 1298.

<sup>12</sup> *Hist. and Sta. Rec. of the Univ. of N. Y.*, Hough, 66.

<sup>13</sup> This suggestive phrase is used in the chapter for Potosi Academy, Mo., 1817. *Laws Dist. Louisiana*, etc., 1804-1824, Lush & Son, I, 519.

such other branches as are most useful and necessary to complete a good English education."<sup>13</sup>

By 1827 the legislature, acting on repeated recommendations of the regents, was ready to pass the law making academies training schools for teachers. The law of that year includes this declaration:

No student shall be deemed to have pursued the higher branches of an English Education unless he shall have advanced beyond such Knowledge of common vulgar and decimal arithmetic, and such proficiency in English grammar and geography as are usually obtained in common schools.<sup>14</sup>

The first State-wide act definitely prescribing grammar seems to have been the 1798 law of Connecticut:

Enacted, That any School Society shall have liberty . . . to institute a School of higher order . . . to perfect the Youth . . . in Reading and Penmanship, to instruct them in the Rudiments of English Grammar, in Composition, in Arithmetic and Geography, or, on particular desire, in the Latin and Greek Languages, also in the first principles of Religion and Morality, and in general to form them for usefulness and happiness in the various relations of social life.<sup>15</sup>

It is significant to note here that Noah Webster's grammars were being published in Hartford between 1784 and 1790. The State law of 1790<sup>16</sup> had retained the compulsory grammar schools in county towns; but the law of 1798 abolished this obligation and gave any school society the right to substitute, on a vote of two-thirds of the inhabitants, English schools of a "higher order." Noteworthy, too, is the suggestive phrase at the end of the law of 1798—"in general to form them (the pupils) for usefulness and happiness in the various relations of social life." All these considerations indicate that in the lawmakers' minds must have been a conviction that the traditional curriculum must go, that schools of higher order must be retained, but that in the nature of English schools grammar and composition were the vernacular branches of the "senior" order, and, finally, that usefulness and happiness in everyday life for all and not for a few highly educated individuals was the supreme purpose of the new English education. Brown very fittingly characterizes this revolution in the curriculum at the end of the century as coming in response "to the chaotic desire to study the vernacular" and prefaces that expressive characterization by affirming that "in the study of English grammar a means was found for giving vent" to this desire.<sup>17</sup>

The legislation of New Hampshire is especially enlightening concerning the status of grammar. The first educational law after the Revolution, repealing all previous acts, provided funds, in 1789, which—

<sup>13</sup> Laws State N. Y., 1797 to 1800, inclusive, IV, 42-3.

<sup>14</sup> Laws State N. Y., Crowell, 1827, 237.

<sup>15</sup> Acts and Laws Conn., Hudson and Goodwin, 1796, 1802 edition, 483.

<sup>16</sup> *Ibid.*, 373.

<sup>17</sup> Brown, *Mak. of Mid. Sch.*, 234.



shall be applied for the sole purpose of keeping an English Grammar School . . . for teaching reading, writing and arithmetic, except in shire and half shire towns, in which the school by them kept shall be a Grammar School for the purpose of teaching the Latin and Greek."<sup>18</sup>

This statute uses the term English grammar school, meaning merely an English secondary school, not a school based on English grammar. But it implied an effort to raise the English school to a higher dignity than before, placing it in title at least on the same footing with the Latin-grammar school. Obviously the real difficulty here is that the lower branches of the vernacular do not possess the substance to present the same drill in an English-grammar school as in a Latin. In order to make the curriculum somewhat analogous and to justify the claim of equal dignity, the higher branches of the vernacular—grammar and composition—would be the next logical advance for the English-grammar schools.

This step was taken by New Hampshire several years later, in the law of 1808, ordering an extension of the curriculum of the English school, and, what is even more significant, dropping the provision for Latin schools in shire and half shire towns "for the sole purpose of keeping an English school . . . for teaching the various sounds and powers of the letters of the English Language, reading, writing, English Grammar, arithmetic, geography, and such other branches of education as it may be necessary to teach in an English School."<sup>19</sup> To be noted here is the fact that most of the English grammars of the day, of which by 1808 there were at least 49<sup>20</sup> published or used in America, had orthography as their first section, usually defined as "the various sounds and powers of the letters." This phrase in the law, then, with the term English grammar, is certain proof of the legal sanction of this branch in a secondary school which was clearly intended to supplant the Latin school.

The law of 1808 goes still further. It provides that "no person is qualified to teach unless he or she procure a certificate from some able and reputable English Grammar school-master."<sup>21</sup> For schoolmistresses it is demanded that "the literary qualifications of schoolmistresses be required to extend no further than that they are able to teach the various sounds and powers of the letters in the English Language, reading, writing and English Grammar."<sup>22</sup> It is clearly shown by the specifications concerning schoolmistresses that English grammar was prescribed for elementary schools. Ultimately grammar was placed in schools in almost all parts of the country which were neither elementary nor secondary, but distinguished by the name

<sup>18</sup> Laws State of N. H., Melcher, 1792, 276.

<sup>19</sup> Laws State of N. H., Norris, 1815, 368.

<sup>20</sup> A list of grammars was compiled but has been omitted in this publication.

<sup>21</sup> Ibid., 368.

<sup>22</sup> Ibid., 369.

"grammar school."<sup>23</sup> As indicated above, it is quite often impossible to determine whether a legal enactment follows or precedes the general adoption of a subject into the curriculum. However, the general absence of textbooks before 1790<sup>24</sup> makes it appear that the public schools at least could not have attempted grammar very generally before that date. But the private schools, as we have seen, were turning more and more to the English curriculum, following the tendency seen in its beginnings between 1750 and 1775. Not infrequently during the two decades before 1800 references are made in various academies to "Professors of English."<sup>25</sup>

#### SIGNIFICANCE OF THE RISE OF THE ENGLISH SCHOOLS.

In the laws of two centuries there is discernible a marked tendency toward the gradual elimination of a classical education. Geography and history, with the feeble beginnings of science, were receiving a little attention; but around the English branches, especially grammar and oral composition in the form of oratory, the new curriculum was in formation. With the passing of Latin, seeming to many unrelated to "usefulness and happiness in the various relations of social life," there was left little language study suitable for any but the most elementary instruction. In the Latin school the backbone of the course

<sup>23</sup> It does not appear that many States specifically mention the incorporation of grammar by State law in their curricula. The Louisiana law of 1826 placed in the primary schools of New Orleans "a professor" to teach "the elements of the English and French grammar." *New Digest Stat. Laws of Louisiana*, Bullard and Curry, 1842, I, 374. In 1834 Maine followed the usual practice of the day by providing that "no person shall be employed as a schoolmaster . . . unless . . . well qualified to instruct youth in reading and writing the English Language grammatically." *Rev. Stat. State of Me.*, Smith & Co., 1841, 169. The law makes the same requirement for schoolmistresses. *Ibid.*

<sup>24</sup> Chap. IV, p. 77.

<sup>25</sup> A case in point is the Delaware Academy of Wilmington, primarily a classical school, which as early as 1786 had a "Professor of English." An extract from the curriculum shows "English, Lowth's Grammar, Blair's Lectures in Rhetoric," and even "the higher English classics frequently employed in exercises and compositions." References like this to English classics before 1800 are extremely rare. Powell, *Hist. of Ed. in Del.*, 45.

The grammar school of Brown University, in 1786, advertised "Greek, Latin and English Languages taught grammatically." Tolman, *Hist. of Ed. in R. I.*, 35.

Apparently the best way to interpret an expression like this is to believe that grammatical instruction in the English language stands in exactly the same relation as grammatical instruction in the classical languages.

The Trenton, N. J., grammar school, in 1789, gave a certificate under the seal of the corporation "to such scholars as shall have studied the English language grammatically." In 1792 the price of tuition was put at \$3 a quarter "for the English School and English Grammar," and in 1817 the trustees recommended the use of "Lindley Murray's system of teaching the English Language." Murray, *Hist. of Ed. in N. J.*, 126.

A suggestive item indicating the way in which grammar spread is found in the story of John Howland, father of the movement for public schools in Rhode Island. Appointed by the city of Providence to draw up rules for the first schools established under the new law, 1789, he went to Boston and there procured a copy of the rules establishing the new school system of 1789 and secured also a list of the textbooks used under that act. Howland says: "Up to this time I had never seen a grammar . . . but observing The Young Ladies Accidence (Caleb Bingham's elementary grammar, Boston, 1785) was used in the Boston schools, I sent to the principal bookseller in that town, and procured one hundred copies for ours. The introduction of Grammar was quite an advance in the system of education as it was not taught at all except in the better class of private schools." Powell, *Hist. of Pub. Sch. Sys. in R. I.*, 17.

had been grammar; the term grammar, the methods of teaching grammar, were ingrained. Latin grammar had stood for the next step above reading and writing the vernacular. When, therefore, the advocates of a practical English training found English grammar in Dilworth and other texts, what was more natural than that they should seize upon it as a suitable substitute for the next step above reading and writing and spelling? English they found reduced to the same accident as Latin; English rules were to be learned as the Latin; textbooks informed them on title pages that grammar was the art of speaking and writing the English language correctly, and this was their laudable desire for their children; here is a suitable setting in the vernacular program for grammar as the basic study. This conviction made its way into legal sanction for English and English grammar in the last decade of the eighteenth century.

## 2. THE FLOOD OF TEXTBOOKS AFTER 1784.

In the preceding chapter the number of textbooks available for instruction in grammar before 1784 was shown to have been very insignificant. With the exception of Dilworth's, primarily a speller, certainly no single book was available in a large number of copies. Therefore nothing is more effective in establishing the rapidly rising popularity of the new subject after the Revolution than the flood of grammatical textbooks which began to pour from the American press.

Even before the State laws at the end of the century paved the way for a higher order of instruction in English these textbooks in grammar began to appear. It is significant that in 1783 Noah Webster, the dean of American textbook writers, opened in Hartford, Conn., a rhetorical school for the express purpose of teaching the English language. It was here that he laid the foundation for his first grammar, Part II of "The Grammatical Institute of the English Language."<sup>26</sup> In Hartford also was framed, in 1799, the first State-wide act specifically mentioning instruction in "the rudiments of English Grammar." It is significant that this was the exact wording of the subtitle of Webster's second grammar, published in 1790, "The Little Reader's Assistant. Rudiments of English Grammar, Being an introduction to the Second Part of The Grammatical Institute." This, too, was published in Hartford.<sup>27</sup> Of course, there is no certainty of causal relation between Webster's instruction and his books and the Connecticut law of 1798.

However that may be, Webster's "Plain and Comprehensive Grammar," of 1784, was the first American textbook on the subject to attain

<sup>26</sup> Evans, *op. cit.*, 8, 105.

<sup>27</sup> Love, *Col. Hist. Hartford*, 270.

wide circulation. Before 1792 it had passed through at least 10 editions.<sup>28</sup> By 1807<sup>29</sup> this book, together with his three other treatises on grammar, although by far less popular than his "Grammatical Institute," enjoyed a wide circulation before Murray appeared in 1795. Webster's success appears to have attracted other American writers into the field at once, since at least 17 other works on grammar appeared before 1795.<sup>30</sup>

Eleven of these 17 textbooks were unsuccessful, apparently none of them enjoying more than two or three editions, including Kenrick's, 1784; Mennye's, 1785; Anonymous, 1789 (3d ed.); Ussher's, 1790; Hutchins's, 1791; Humphries's, 1792; Tichnor's, 1792; Miller's, 1795; Carroll's, 1795; and Dearborn's, 1795. Of the 17, two were Webster's books mentioned above—"The Rudiments," 1790, and "The Young Gentleman and Ladies Accidence," 1792. Harrison's, 1787, was an English text reprinted in Philadelphia<sup>31</sup> and in its ninth American edition before 1812; Ussher's, 1790, was also an American edition of a London book of 1787<sup>32</sup> and had its third American edition in Exeter, N. H., in 1804.<sup>33</sup>

Of the 17 books antedating Murray's (between 1784 and 1795) there remain two which attained relatively wide use in American schools before Murray's grammars appeared. Of these, the less important was Caleb Alexander's "A Grammatical System of the English Language," Boston, 1792. It passed through at least 10 editions before 1814.<sup>34</sup>

Bingham's little elementary book of 45 pages appeared in Boston in 1785 and in a very few years leaped into popularity in that city and elsewhere. It was printed in at least 20 editions before 1815;<sup>35</sup> 100,000 copies were sold.

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<sup>28</sup> Webster says: "I published a grammar on the model of Lowth's; . . . this work passed through many editions before Murray's book appeared. . . . I determined to suppress my grammar; . . . a new work appeared in 1807." Webster's Dictionary, 1828, preface, 3. Of this book Evans lists 10 editions before 1792, the first in 1784 (Evans, 6, 837), the last in 1792 (*ibid.*, 8, 382). The number of editions was large. The writer, for example, is using the sixth Connecticut edition, 1800, and the book was published by firms in both Boston and Philadelphia, 1790 and 1787, respectively. Evans, 8, 104, and *ibid.*, 7, 183. In both places there were several editions before 1800.

<sup>29</sup> Webster's second grammar, "The Rudiments," 1790, passed through six editions in the first two years, in Hartford, Albany, Boston, and Northampton. Evans, *op. cit.*, 8, 105; 8, 233. His third book appeared in 1792, published anonymously under the title "The Young Gentleman and Ladies Accidence, a Comprehensive Grammar of the English Tongue," in Boston. The 1807 text was "A Philosophical and Practical Grammar." His last grammatical treatise appeared as late as the year 1831, "An Improved Grammar of the English Tongue." Barnard, *Am. J. of Ed.*, XV, 569.

<sup>30</sup> See Appendix A.

<sup>31</sup> Evans, *op. cit.*, 7, 121.

<sup>32</sup> *Ibid.*, 8, 98.

<sup>33</sup> *Am. Jour. of Ed.*, XV, 565.

<sup>34</sup> *Ibid.*, XIII, 212; Evans, *op. cit.*, 8, 242.

<sup>35</sup> *Ibid.*, 218. The writer uses the nineteenth edition, Boston, 1813; the name Martha Stebbins appears on the flyleaf.

Bingham, a graduate of Dartmouth, 1782, had opened a private school for girls in Boston in 1784 and had there begun what has been called the first pretentious effort to teach English grammar in that city.<sup>36</sup> This statement ignores the earlier efforts to teach grammar, some of which, as we saw above, antedated 1775, either through ignorance of their existence or because they were insignificant as compared with Bingham's. At any rate, "The Young Ladies Accidence" was the result of Bingham's work in this school. It is interesting to remember that Noah Webster published anonymously in Boston, in 1790, an elementary book of approximately the same size as Bingham's under the name "The Young Gentleman and Ladies Accidence." Bingham, in 1789, accepted a position in the reorganization of the Boston schools,<sup>37</sup> and his grammar was adopted by vote of the board as the official text in the writing schools.<sup>38</sup>

Of Webster and Bingham, William B. Fowle, editor of the *Common School Journal*, says:

No two men ever exercised more influence over the schools of this country. . . . Webster's Grammar was but little used compared with Bingham's; but his spelling book was far more extensively used. . . . The two authors divided the field between them.<sup>39</sup>

Neglecting now the reproduction of grammars which we have mentioned as preceding 1784, we find 17 entirely new books in the field appearing in America before Murray's was introduced. Of these 17 certainly no fewer than 50 editions had been published within the decade before 1795. We may conclude, first, that the impending flood of grammars had begun to appear, and, second, that Brown is in error in maintaining that "Lindley Murray's Grammar, published in 1795, gave the first definite direction to this department of study."<sup>40</sup>

But the grammars of Webster, Bingham, and the rest were insignificant in their influence compared with the unexampled popularity of Lindley Murray's, beginning shortly after 1795. This is the Lindley Murray whom we saw as a boy enrolled in the English school of the Academy and Charity School of Philadelphia in 1754.<sup>41</sup> On both sides of the Atlantic this man's productions were reprinted literally hundreds of times and were copied and abridged at least a score of times by other authors. His most famous text was "English Grammar, Adapted to the Different Classes of Learners," York, England, 1795.<sup>42</sup> He also prepared an "Abridgement of English Grammar,"

<sup>36</sup> Wm. B. Fowle, *Barnard's Am. Teachers and Ed.*, 70.

<sup>37</sup> *Ibid.*, 57.

<sup>38</sup> Jenks, *op. cit.*, 228.

<sup>39</sup> C. S. J., 1850, 74.

<sup>40</sup> Brown, *op. cit.*, 234.

<sup>41</sup> See Chap. III, p. 54.

<sup>42</sup> Barnard, *op. cit.* XV, 775.

1797; "An English Grammar, in Two Volumes," 1814, 2d edition; and "English Exercises," published first before 1802.<sup>43</sup>

An 1812 edition of the first book asserts that 35,000 copies of his larger book and 50,000 of his "Abridgement" were being sold annually in America. In 11 years the "English Grammar" passed through 21 editions in England and twice that number in America, while the "Abridgement" had had 20 editions in England and 30 in America. Murray's "English Exercises" were published frequently, and his larger grammar had its fifth edition in New York in 1823.<sup>44</sup> The larger books were adopted by many of the colleges in both countries. It is asserted that his grammatical texts totaled over 120 editions of 10,000 copies each on the average; that more than 1,000,000 copies of his books were sold in America before 1850.<sup>45</sup>

But Murray's influence can not be estimated by his own books alone. At least 12 men prepared and published editions or abridgements of his various works. Among them may be mentioned Bullard, 1797, tenth edition, by 1817; Flint, 1807, sixth edition, by 1826; Lyon, 1811, fourteenth edition, by 1821; Pond, 1829, eighth edition, by 1836; Alger, 1824, fourth edition, by 1846; Fisk, 1821, third edition, by 1824. In this list are included also Russell, 1819; Booth, 1819; Cooper, 1828; Putnam, 1825; Miller, 1823; Blair, 1831; Bacon, 1818; and Cheesman, 1821, third edition.<sup>46</sup> In other words, a very conservative estimate of the total number of Murray's grammars, including his own and his followers' before 1850, is 200 editions, totaling between 1,500,000 and 2,000,000 copies.

Some idea of the rapid rise of grammar after 1784 may be gained by examining the distribution of the 301 grammars written by Americans and printed in America before 1850.<sup>47</sup> Distributed by decades they are: 1760-1770, 1; 1771-1780, 5; 1781-1790, 9; 1791-1800, 18; 1801-1810, 14; 1811-1820, 41; 1821-1830, 84; 1831-1840, 63; 1841-1850, 66; total, 301.<sup>48</sup>

It is to be remembered that each unit in the foregoing represents a new author or an entirely new book by an earlier author. As in the case of the Murray grammars, we have seen the very large number of editions issued. In other words, during the decade 1821-1830, in addition to the 84 new books, many of which were printed several times, there were also published at the same time a very large number of editions of books whose first editions had preceded 1821.

The above indicates that the desultory and scattered beginnings of English grammar before 1775 sowed the seed which, after the Revo-

<sup>43</sup> Ibid., 776.

<sup>44</sup> Ibid., 775.

<sup>45</sup> Gould Brown, *Am. Ann. of Ed. and Ins.*, 1832, 584.

<sup>46</sup> Barnard, *op. cit.*, 775-6.

<sup>47</sup> This catalogue is omitted from this volume; Appendix A has list of grammars to 1802.

<sup>48</sup> Includes English books reprinted in America up to 1800.

lution, began very rapidly to ripen into a harvest. The number of new textbooks alone for the entire period averaged more than four a year, and in the decade between 1821 and 1830 more than seven a year.

Only a rough estimate of the total number of editions can be made; many of the textbooks reached large circulation. Among the more popular may be mentioned Comly's, 1804, which reached its fifteenth edition in 1838; <sup>49</sup> Greenleaf's "Grammar Simplified," 1819, its twentieth edition in 1837; Samuel Kirkham's "An English Grammar in Familiar Lectures," 1823, its thirty-sixth edition in 1834, its fifty-third edition in 1841; <sup>50</sup> Parker's "Progressive Exercises," 1823, primarily a composition book, attained its forty-fifth edition in 1845. Bullion's "Practical Lessons in English Grammar," 1844, reached its thirteenth edition by 1851; William H. Wells's "School Grammar" was in its twentieth edition in 1854; and in five years Peter Bullion's "Analytical and Practical Grammar," of 1849, attained its thirty-fifth edition.

A modest estimate, then, of the total number of editions attained by the leading grammarians, including Murray and his followers, is 400. Others were frequently reprinted; for example, Alexander's, 10; Jandon's, 18; Brown's, 10; Hull's, 7, etc. Even estimating that many had only one edition, the total number of American editions of grammars before 1850 was in the neighborhood of 1,000.<sup>51</sup>

Still more difficult is it to estimate the number of copies turned out in these 1,000 editions. The number of volumes printed in a few editions is known. As early as 1772 and 1787 editions of 10,000 copies of Dilworth's "New Guide" were issued. This is hardly a fair criterion, however, because Dilworth's included three textbooks in one and was without serious competitors. In 1766 the firm of Franklin & Hall was preparing an edition of Dilworth's consisting of 2,000 copies.<sup>52</sup>

One of the most used early texts was Bingham's "Young Ladies' Accidence." Of this the 1792 edition included 4,000 copies.<sup>53</sup> It has been asserted that this book passed through 20 editions of 5,000 copies on the average, aggregating 100,000 copies, before 1820.<sup>54</sup> Kirkham affirmed, in 1837, that his book was selling at the rate of 60,000 a year.<sup>55</sup> In 1829, after being only six years off the press, Kirkham's book was selling at the rate of 20,000 a year.<sup>56</sup>

<sup>49</sup> The evidence as to the number of editions is taken from Barnard's list of American textbooks in *Am. J. of Ed.*, XIII, XIV, XV.

<sup>50</sup> Barnard refers to a one hundred and tenth edition. *Op. cit.*, XIV, 736; also Gould Brown, *Gram. of Gram.*, 28.

<sup>51</sup> The actual count of known editions of books mentioned in the catalogue previously referred to is 961. The evidence is acknowledged to be very incomplete. See Barnard's lists, *Am. J. of Ed.*, XIII, XIV, XV.

<sup>52</sup> Evans, *op. cit.*, 4, 52, 314, and 7, III.

<sup>53</sup> Evans, *op. cit.*, 8, 257.

<sup>54</sup> Small, *Early N. E. Sch.*, 107; also Barnard, *op. cit.*, XIV, 212.

<sup>55</sup> Knickerbocker Mag., Oct., 1837.

<sup>56</sup> Brown, *op. cit.*, 28.

If we may assume that 5,000 copies is a fair average for each edition, then approximately 5,000,000 copies of grammatical textbooks were printed in America by 1850. In other words, two editions for every large city were issued by that date.

### 3. THE EXTENT OF INSTRUCTION IN GRAMMAR IN REPRESENTATIVE STATES, 1800-1850.

#### NEW YORK.

English grammar was a part of the curriculum of the academies chartered by the regents of the University of New York from 1784, the year of its beginning. Regents' reports for the years 1804 to 1807, based on data obtained from the individual reports made by the academies, show that during these years English grammar was taught on a par with Latin grammar.<sup>57</sup>

Each year special mention is made of English grammar, together with other branches usually considered parts of the English curriculum, as distinguished from the Latin. Indeed, they are mentioned in a larger number of academies than is the curriculum of the "dead languages."<sup>58</sup>

The academies have more significance than appears at first thought. After 1821 the academies of New York were regarded as a source of supply of teachers for the common schools of the State. In that year the regents said: "It is to these seminaries that we must look for a supply of teachers for the common schools."<sup>59</sup> In 1827 and succeeding years recommendations to this effect were repeated to the legislature by the regents, with pleas for increased appropriations. In 1834 the legislature passed the desired law.<sup>60</sup> In consequence the regents declared that no person should be admitted to the teachers' department until he had passed such an examination as to entitle him to be

<sup>57</sup> The following table is taken from Hough's Hist. and Statis. Rec., Univ. of New York, 1784-1884, 421

Studies.	1804		1805		1806		1807	
	Academies.	Pupils.	Academies.	Pupils.	Academies.	Pupils.	Academies.	Pupils.
Reading, writing.....	14	480	10	205	10	208	18	631
English grammar, arithmetic.....	16	429	10	228	10	312	19	649
Mathematics, bookkeeping.....	12	123	7	36	7	51	15	134
Dead languages.....	15	213	9	184	10	130	18	244
Logic, rhetoric, composition.....	6	101	4	48	4	38	17	97
Moral philosophy.....			1	1	2	14	3	22
Natural philosophy.....			1	1	3	14	4	36
French language.....	4	38	1	1	.....	.....	4	26

<sup>58</sup> This term was upon the printed blank sent out by the regents during the four years named.

<sup>59</sup> Hough, op. cit., 527.

<sup>60</sup> Ibid., 536.



considered a scholar in the higher branches of English education, the first specified subject of which is the English language.<sup>61</sup> By 1837, 374 persons were enrolled in these teachers' departments.<sup>62</sup> After 1836 the total enrollment in the academies increased at the rate of nearly 1,000 students a year, reaching the number of 20,920 in 1852.

Consideration of the textbooks used by the academies between 1832 and 1850 shows that the Murray grammars gradually disappeared.<sup>63</sup> Kirkham's book does not reach its height until 1840; then it begins to disappear, while Brown's gradually increases in popularity and the new books of Weld, Wells, and Greene come to the fore. Greenleaf's has meantime sunk into insignificance. Bullion's books were "The Principles of English Grammar," Albany, 1834, which reached its fourteenth edition in 12 years; "Practical Lessons in English Grammar and Composition," New York, 1844, thirty-third edition in seven years; two minor works, and, finally, "Analytical and Practical English Grammar," New York, 1849, which attained its thirty-fifth edition in six years.<sup>64</sup> Wells's, Clark's, Weld's, and Greene's books belong to a new generation of textbooks. These we shall see in a later chapter originating an entirely new conception of the nature and functions of grammar and the methods of teaching it.<sup>65</sup>

<sup>61</sup> Ibid., 539.

<sup>62</sup> Ibid., 546.

<sup>63</sup> *Textbooks in grammar, New York academies, 1836-1852—Number of academies using various texts.*

[Compiled from Annual Reports of Regents of State of N. Y., 1837-53.]

Year.....	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852
Total number of academies reporting.....	69	74	106	119	127	131	142	149	146	153	155	156	156	161	166	168	170
Number of students.....	6,056	6,391	7,070	8,892	10,168	10,560	11,977	11,689	12,257	13,481	13,998	14,202	15,043	16,514	17,912	19,552	20,920
Grammars:																	
Murray.....	18	15	14	11	10	9	6	6	5	2	2	1	1	1	1	2	1
Kirkham.....	38	45	58	56	61	54	54	51	39	33	37	33	25	22	15	17	9
Brown.....	20	27	37	36	40	47	54	71	73	69	67	75	71	72	72	66	68
Smith.....	24	25	40	46	53	48	52	56	52	48	40	35	29	24	22	21	22
Bullion.....	4	7	10	8	8	13	21	37	47	48	52	53	49	45	50	50	55
Webster.....			1	2	6	3	4	5	6	3	3	3	3				
Spencer.....																7	5
Greenleaf.....		3		3	3	3	3	4	4	3	2	2	1	1	1	1	1
Wells.....											3	8	15	18	15	15	13
Clark.....													6	7	8	8	10
Weld.....													3	8	8	21	19
Greene.....													1	2	5	7	4
Scattering.....	2		2	7	5	3	1	5	9	10	9	10	8	11	14	16	11
Total grammars used.....	106	122	162	169	186	180	195	247	235	216	225	220	212	211	213	241	215

<sup>64</sup> Barnard, op. cit., XIII, 221.

<sup>65</sup> See Chap. VI, p. 152.

Turning now to the common schools of New York, as distinguished from the academies, we find that the reign of the Murray books reached its height about 1833.<sup>66</sup>

The second book, reaching its height of popularity by 1839, is Kirkham's "English Grammar by Familiar Lectures," 1825, of which Barnard lists editions up to the forty-ninth, all published in New York before 1840.<sup>67</sup> Then follows Gould Brown's "The Institutes of English Grammar," New York, 1823. The fourth author is Roswell Smith, whose two works were "Intellectual and Practical Grammar on the Inductive System," Providence, 1829, and "English Grammar on the Productive System," Boston, 1831. Next comes Jeremiah Greenleaf, whose "Grammar Simplified," New York, 1829, reached its twentieth edition in 1851.<sup>68</sup>

Detailed discussion of the significance of the domination of the Murray books, apparently reaching their height in New York about 1833, and of the almost meteoric rise of Kirkham contemporaneous with the passing of Murray, is reserved for another chapter<sup>69</sup> on methods of teaching. Of interest here is the comparison of the amount of grammar being taught during this period. County officers almost without exception report that four subjects are taught in all towns—reading, spelling, arithmetic, and grammar. The table on page 85 shows the three most widely used textbooks in the counties of New York of these three subjects, in addition to grammar.<sup>70</sup>

In each subject there seems to be one book which goes far toward monopolizing the field. In grammar, honors for the period are fairly well distributed between two, and the two together have a distinct

<sup>66</sup> *Textbooks in grammar, New York Public Schools, 1826-1839—Number of towns using various texts.*

[Compiled from Annual Rept. Supt. Common Schls., N. Y., 1830-1840.]

	1826.	1829.	1831.	1832.	1833.	1835.	1836.	1837.	1838.	1839.
<b>Grammars:</b>										
Murray.....	389	472	466	462	459	373	294	267	208	177
Kirkham.....		28	72	111	179	331	371	382	427	608
Brown.....		3		17	18	21	31	43	60	.....
Smith.....					7	20	31	63	102	.....
Greenleaf.....	35	76	88	96	93	61	46	28	28	23
Murray Introd.....	14	20	17	12	7	6	5	3	.....	.....
Murray Sequel.....		4			13	9	5	10	4	.....
<b>Other books:</b>										
English Reader.....	434	584	547	543	563	516	496	431	.....	414
Daboll's Arithmetic.....	349	473	469	472	465	500	390	457	.....	455
Webster's Speller.....	302	417	400	433	418	332	265	227	.....	470

<sup>66</sup> Barnard, op. cit., XIV, 763.

<sup>67</sup> Ibid., XIII, 639.

<sup>68</sup> See Chap. VI, p. 134.

<sup>70</sup> Textbooks Used in New York, 1827-31. Summary from Reports of Supt. Com. Schs., N. Y., reprinted A. J. of Ed. and Ins., 1832, 378.

advantage over Daboll's Arithmetic. By 1839 Kirkham alone surpassed all other textbooks except Webster's Speller, which for some reason shows an unusual advance that year.

Books.	Towns (1827).	Towns (1830).	Towns (1831).
English Reader.....	434	584	547
Daboll's Arithmetic.....	349	473	469
Murray's Grammar.....	389	472	466
Webster's Speller.....	302	317	400
Testament.....	168	216	200
Woodbridge's Geography.....	110	309	412
Willet's Geography.....	117	120	121
Morse's Geography.....	108	98	72
Adams's Arithmetic.....	91	96	102
Pike's Arithmetic.....	80	61	46
Cobb's Geography.....	59	209	240
Greenleaf's Grammar.....	35	76	88
History of the United States.....	6	33	52
Tyler's History.....	4	9	6
Colburn's Arithmetic.....	1	8	26
Kirkham's Grammar.....	0	28	72

An idea of the proportion of pupils studying grammar may be obtained from facts a few years later. In 1842, out of 173,384 pupils, reported from 43 counties, 28,119 were studying English grammar.<sup>71</sup> In 1846, of 227,760 pupils in winter schools, 51,484 were reported as studying grammar, and of 211,747 in summer schools 32,289 were studying the subject.<sup>72</sup> In 1847, of 47,833 pupils in summer sessions 39,846 were studying grammar.<sup>73</sup> In round numbers, between 15 and 20 per cent of the total number of pupils were studying grammar in the common schools of New York as the middle of the century approached.

#### MASSACHUSETTS.

The Massachusetts law of 1826, amended in 1837 and 1839, required "in every town containing fifty families [extended in 1839 to 'every town in this commonwealth']"<sup>74</sup> . . . one school for the instruction of children in orthography, reading, writing, English grammar, geography, arithmetic, and good behavior." Horace Mann, secretary of the board of education, in 1838 interpreted this law to prescribe what he calls "minimum literary qualifications of teachers"; that is, they "must be competent to teach the various subjects named."<sup>75</sup>

Moreover, the law of 1835 required the school committee of every town to submit annual school returns containing replies to 11 definite

<sup>71</sup> Ibid., 1843, 7.

<sup>72</sup> Ibid., 1847, 18.

<sup>73</sup> Ibid., 1848, 81.

<sup>74</sup> Acts and Resolves, Mass., 1839, 22.

<sup>75</sup> Mass. Sch. Rept., 1838, 59.

Mann is very careful to emphasize the point that it is strictly lawful for districts to employ teachers more highly qualified, "who are able to teach the required branches better, because they are masters of higher ones—who, for instance . . . can teach English grammar better, because familiar, from the study of other languages, with the principles of universal grammar."

inquiries, of which the seventh was, "What are the Books in general use, specifying Spelling Books, Arithmetics, Grammars, Geographies, Reading and other Books?"<sup>76</sup> This provision was in force until 1841.<sup>77</sup>

Pursuant, then, to this series of acts the first four annual reports of Mann, 1837 to 1840, inclusive, contain these data, as reported by the separate town school committees.<sup>78</sup>

Concerning the status of grammar in Massachusetts between 1837 and 1841, several conclusions may be reached. The law requiring grammar was obeyed in letter at least. Only four towns did not report the subject in their curricula; in addition, only six towns failed to make any report. Almost all the towns reported at least one textbook in grammar. Roswell Smith's "Inductive" and "Progressive" grammars were by far the most popular, with gradually increasing numbers; Murray's followed in decreasing popularity. In Worcester County, Pond's Murray monopolized the field, showing the comparatively local popularity of the Worcester author. Of the 35 towns reporting Pond's as in use in 1837, 23 were in Worcester County and 8 in the neighboring county of Franklin. About one-fifth of the towns reported more than two grammars; some towns—Pittsfield, for example—reported as many as five textbooks in use.<sup>79</sup>

The larger towns only, like Boston<sup>80</sup> and Dorchester, used separate

<sup>76</sup> Laws Com. Mass., XIII, 509.

<sup>77</sup> Acts and Resolves, Mass., 1841, 345.

<sup>78</sup> *Towns naming English grammar in Massachusetts.*

[Compiled from School Returns, 1838, 1839, 1840, 1841.]

Year.....	1837	1838	1839	1840
Number of towns.....	298	295	224	307
Smith's.....	208	215	224	237
Murray's.....	104	96	84	54
Putnam's Alger.....	19	18	17	15
Pond's.....	35	36	36	41
Greenleaf's.....	19	17	15	9
Brown's.....	11	12	11	13
Frost's.....	13	13	12	12
Ingersoll's.....	9	10	11	9
Kirkham's.....	7	7	7	4
Parker's.....	13	17	26	20
Webster's.....	1	1	2	3
Scattering.....	10	12	15	14

<sup>79</sup> Concerning the great variety of textbooks in all subjects, Mann reported that in 1837 there were in use in Massachusetts 110 different readers and spellers, 24 grammars, 22 arithmetics, 20 geographies, 9 books of diction, 3 chemistries, 5 geometries, 2 compositions. A. A. of Ed. and I., VII, 101.

<sup>80</sup> In 1840-41 the Boston school system embraced 1 Latin grammar school, 1 English high school, 13 grammar and writing schools, and 95 primary schools. Bost. Sch. Rept., 1841, 3. Regulations prescribed for the grammar schools (four-year course), in Class III, Murray's "English Grammar," abridged by Alger, or Parker and Fox's "Progressive Exercises"; Class II, the same continued and Foot's "Exercises in Parsing"; Class I, the same continued, together with composition and declamation. Ibid., 16. For admission to the English high school an examination in grammar was necessary; for the first year of high school a review of grammatical texts of the lower schools was prescribed, while "the several classes shall be instructed in grammar." Ibid., 20.

textbooks in parsing and composition. Mann says that only two schools had separate instruction in composition. Nevertheless, we see that increasing use of Parker's "Progressive Exercises in Composition" indicated that the latter subject was encroaching upon the field of formal grammar.<sup>81</sup>

The overwhelming preponderance of Smith's books, only six years off the press, denoted a rapid departure from the Murray type. To be sure, Pond's, Putnam's, and Alger's were nothing but modifications of Murray's; but even adding the towns using the three to the towns using Murray's a total of 159 towns in 1837 is still far short of the popularity of Smith's "Productive Lessons." Out of 298 towns reporting, 208 used Smith's book,<sup>82</sup> many of them in the grades immediately above the primary, usually called grammar grades. Private schools and academies also used it.

This was the period of the extreme popularity of Kirkham's book in New York, but naturally we do not find the grammars of New York very widely adopted by the schools of Massachusetts.

The records of 1840 show a remarkable increase of schools breaking away from the Murray type of instruction.<sup>83</sup> Only 54 towns, as compared with 104 in 1837, still kept the Murray, while the Putnam and Pond merely held their own. Very many towns which in 1837 had reported the use of both Smith's and Murray's, in 1840 reported the former alone.

While on the whole the law requiring the teaching of grammar was generally obeyed, there is frequent testimony that it was studied with reluctance and even open opposition. For example, the Provincetown committee reported: "Grammar has been attended to very indifferently, in our town schools, for all past time. There are but few scholars who study it at all, and few indeed who have made much proficiency in it."<sup>84</sup> In the same year the Westport school officials asserted:

As there are some schools in which grammar has never been taught . . . and there are few or none who wish to pursue it . . . for these reasons the committee has been urged to grant certificates to teachers deficient in grammar.<sup>85</sup>

#### VERMONT.

Vermont and New Hampshire present much the same relative emphasis on grammar between 1840 and 1850. Especially frequent is the complaint against the multiplicity of textbooks. The State superintendent of Vermont reports, in 1848, that several conventions of

<sup>81</sup> Mann, *op. cit.*

<sup>82</sup> See Chap. IV, p. 86.

<sup>83</sup> *Ibid.*

<sup>84</sup> Mass. Sch. Ret., 1843, 271.

<sup>85</sup> *Ibid.*, 252.

county superintendents had recommended uniform textbooks. The grammar chosen was William H. Wells's.<sup>86</sup> English grammar was included, according to the State official, "among the usual branches."<sup>87</sup> Superintendents of various counties report "Wells' grammars in most schools,"<sup>88</sup> while the State superintendent thinks that the acquaintance with grammar acquired is "very slight."<sup>89</sup> "Teachers are very poorly prepared."<sup>90</sup>

#### NEW HAMPSHIRE

In his section on schoolbooks the school superintendent of New Hampshire, in 1846, makes a typical comment:

In the days of Pike's Arithmetic, and Murray's Grammar, and Webster's Spelling Book, there was no trouble in choosing books; there were none to choose from. Our difficulty consists mainly in determining which is best among so many that are good.<sup>91</sup>

One county official strikes even a new note when he recommends that "a portion of the time now devoted to grammar and arithmetic ought to be spent in the proper study of mankind."<sup>92</sup>

#### OHIO.

Only an occasional reference concerning grammar finds place in the records of the State superintendent of Ohio during this early period. In 1838 one county official reported: "Reading, writing, arithmetic, geography, and grammar are taught in most schools."<sup>93</sup> Clerks of the county examiners complain of the almost utter incompetency of teachers, one saying that of 156 examined 53 were very poorly qualified and but 51 understood "either wholly or in part" geography, English grammar, and history. The county was compelled to accept them, else many schools would have been left without teachers."<sup>94</sup>

Ten years later (1846-47) the status of grammar had improved considerably in Ohio. Reports of the State superintendent indicate that the subject was now regarded as an essential part of the common-school program. In the words of the State Teachers' Association of

<sup>86</sup> Rept. Supt. Com. Sch., Vt., 1848, 21.

<sup>87</sup> Ibid., 24.

<sup>88</sup> Ibid., 1849, 52.

<sup>89</sup> Ibid., 17.

<sup>90</sup> Ibid., 47.

<sup>91</sup> Rept. Supt. Com. Sch. N. H., 1846-7, 18.

<sup>92</sup> Ibid., 1848, Appendix, XXXIX.

<sup>93</sup> Rept. of Supt. Com. Sch., 1839, 52.

<sup>94</sup> Ibid., 53.

1847, "a substantial English education ought to be given every citizen of the State."<sup>65</sup> In the "union schools," Ohio's term for common schools, divided into primary, secondary, and senior or grammar-school departments—

a thorough course of instruction in all the common English branches is pursued, and to this is added, when practicable, a high school, in which the higher English branches, mathematics, and the languages are taught."<sup>66</sup>

Ashtabula County reported that Smith's Grammar was used in 99 schools, Kirkham's in 49, Brown's in 25, Noell's in 16, Bullion's in 13.<sup>67</sup> The following tabular statement from the same county gives indication of the number of pupils studying the subject as compared with the other English branches:

*Summer schools, 1847.*

Townships.	Number of schools visited.	Average attendance.	Number in spelling.	Number in arithmetic.	Number in grammar.	Number in geography.	Number in composition.
28	131	2,869	3,550	580	371	873	163
WINTER SCHOOLS.							
28	157	4,190	Per cent. 19	Per cent. 35	Per cent. 19	Per cent. 23	Per cent. 8

<sup>68</sup> *Ibid.*, 34.

Seneca County also furnishes data on this point. The number of pupils studying spelling was 3,200; arithmetic, 3,540; grammar, 420; geography, 500.<sup>69</sup>

Nevertheless, complaint was frequently made that teachers were incompetent to teach the subject.<sup>1</sup> Licking County so reports. In Fairfield County, of 110 licensed all were found competent to teach reading, writing, and arithmetic, only 64 were proficient in grammar, 62 in geography, and 10 in algebra.<sup>2</sup> In Knox County somewhat more than 50 per cent of the teachers were competent in grammar,<sup>3</sup> and some districts refused to allow grammar and geography to be taught, the examiner adding: "If geography and grammar were added as legal qualifications of teachers, they would be required to understand them." Ashtabula County reported fully all the examinations given pupils in the various classes. Eighteen minutes were allowed candidates to answer the following examination in grammar:<sup>4</sup>

<sup>65</sup> Rept. of Sec. of State, Com. Sch., 1848, 52.

<sup>66</sup> *Ibid.*, 58.

<sup>67</sup> *Ibid.*, 82.

<sup>68</sup> *Ibid.*, 47.

<sup>1</sup> *Ibid.*, 42.

<sup>2</sup> *Ibid.*, 40.

<sup>3</sup> *Ibid.*, 41.

<sup>4</sup> *Ibid.*, 20.

It is the mind that lives.

1. How many capital letters should be used in writing the above sentence?
2. Is the sentence simple or compound?
3. How much may be regarded as a simple sentence?
4. In this sentence what are the principal parts?
5. What is government in grammar?
6. What is meant by case?
7. What is meant by the conjugation of a verb?
8. Give the principal parts of the verb "to go."

These questions were given to 455 children of average age of 15; 42 per cent of the answers were correct. The highest average was 72 per cent for Morgan Township.<sup>5</sup> The same attitude toward the curriculum was found in the State reports of Ohio in the decade 1847-1857 as in the preceding 10 years; the references, however, are scattering and unsatisfactory. Nevertheless, the fact that we invariably find grammar named whenever a complete curriculum is mentioned indicates that the subject was fully established. In Ashtabula County, in 1850, the distribution of pupils by studies was: Orthography, 2,174; reading, 6,005; mental arithmetic, 1,684; written arithmetic, 2,214; geography, 1,248; English grammar, 934; composition, 759.<sup>6</sup> Coshoc-ton County reported 255 pupils in spelling, 181 in arithmetic, 180 in grammar, 13 in geometry.<sup>7</sup> Holmes, Meigs, Preble, Rockland, and Scioto Counties reported grammar taught in all the districts,<sup>8</sup> while Pike County affirmed—

the provision of the law requiring teachers to understand Geography and English Grammar should by no means be repealed. It is found that in this county teachers are as defective in Arithmetic as in Grammar; . . . the majority, yea, four-fifths of the applicants, are unqualified to teach anything more than the first principles.<sup>9</sup>

#### NORTH CAROLINA.

The private schools of North Carolina generally included English grammar in their curricula after 1800.<sup>10</sup> Five schools before 1800 report grammar. Grove Academy, the earliest, in 1787 reported "twenty-five students under a master who teaches only the Latin and English grammar."<sup>11</sup> The trustees of New Bern Academy report the examination of pupils in the English language in 1794;<sup>12</sup> likewise,

<sup>5</sup> *Ibid.*, 21.

<sup>6</sup> *Ann. Rept. Sec. State, Com. Sch.*, 1851, 55.

<sup>7</sup> *Ibid.*, 63.

<sup>8</sup> *Ibid.*, 79, 96, 104, 107, 112.

<sup>9</sup> *Ibid.*, 103.

<sup>10</sup> Data in this section are compiled from *North Carolina Schools and Academies, 1790-1840, A Documentary History*, by Charles L. Coon.

<sup>11</sup> Coon (*op. cit.*, 75) cites Carr's Dixon Letters, 34, 35.

<sup>12</sup> *Ibid.*, 50. *New Bern Gaz.*, Jan. 4, 1794.



Fayetteville Academy announces that pupils excel in English grammar in 1800.<sup>13</sup> in 1794 Wayne Academy began with emphasis in English, and a few years later the "fifth class . . . were examined in English Grammar from the verb 'to have' to syntax"; the sixth class "as far as the substantive"; the seventh "as far as the 'article,'" and the eighth class "to the verb 'to be.'" <sup>14</sup>

The decade between 1801-1810 shows 18 schools specifically naming grammar. The following are typical statements: Wadesborough Academy, "English Grammar, Geography, . . . twelve Dollars."<sup>15</sup> Caswell Academy employed an instructor "to teach the English Language grammatically."<sup>16</sup> The Halifax Classical School was opened in 1807 "where he (the principal) taught the Latin & English grammatically. . . ." <sup>17</sup> The succeeding decade shows 25 academies and schools definitely mentioning the subject. In the Salisbury Academy Miss Elizabeth T. Harris was examined "on the whole of English Grammar, parsing, correcting false syntax, rules of punctuation, perspicuity, etc. . . . and she exhibited several specimens of Composition."<sup>18</sup> In 1819 John Haasam came to Raleigh "as a traveling teacher of English Grammar." His announcement begins: "The Acquisition of English Grammar Rendered pleasing, expeditious and permanent."<sup>19</sup> The decade of 1821-1830 shows 39 definite announcements of grammar; that of 1831-1840 shows 31 schools which give the subject a prominent place. One Edward Fowlkes, in 1831, announced of a certain school: "It is an institution in which the English Grammar is taught upon a completely new and successful plan in seven weeks, at seven dollars per scholar."<sup>20</sup>

In all, 118 schools, of about 300 private institutions of which Coon has reprinted documents, were definitely teaching English

<sup>13</sup> Ibid., 60. Raleigh Reg., Aug. 19, 1800.

<sup>14</sup> Ibid., 634. Raleigh Reg., Oct. 9, 1818. The textbooks mentioned in these records are Murray's Grammar and Murray's Exercises. Among the books advertised in North Carolina during the period before 1810 appear also Webster's, Ashe's, Dilworth's, Priestley's, Lowth's, Aker's, Harrison's "Exercises in Bad English," Murray's "Exercises," Murray's "Introduction," Fisher's. Ibid., 769, 73, 74, 75, 77, 80, 86. After 1810 there appear in addition Alexander's, Garretson's "Exercises in Bad English," Greenleaf's, Ingersol's, Comley's, Brown's, Boardman's. Ibid., 789, 95. In 1838 Turner and Hughes, of Raleigh, advertised "200 Smith's Practical Productive Grammar, 700 Murray's English Grammar well bound in leather and offered at a reduced price." Ibid., 798, Raleigh Reg., Mar. 12, 1838.

School officials were eager to secure good English teachers. Such advertisements appeared in the Raleigh Register between 1800-1810; also qualified "to teach English Grammar." Ibid., 800-4. From 1811-1820 there are cited seven similar advertisements. Thirty of the 40 advertisements and announcements cited between 1821 and 1840 concern teachers for English schools. Ibid., 813-820.

<sup>15</sup> Ibid., 2. Raleigh Reg., May 9, 1803.

<sup>16</sup> Ibid., 19. Raleigh Reg., Dec. 9, 1803.

<sup>17</sup> Ibid., 175. Halifax Jour., Jan. 12, 1807.

<sup>18</sup> Ibid., 363. Western Carolinian, Dec. 19, 1820.

<sup>19</sup> Ibid., 521. Raleigh Reg., Aug. 27, 1819.

<sup>20</sup> Ibid., 558; The Star, June 30, 1831.

grammar before 1840. No direct evidence appears with respect to instruction in English grammar in the 172 other schools, and we can not therefore assert positively that instruction in this branch was given in any one of them. Yet it seems likely that some of these schools gave such instruction, because many of them do not announce their curricula, and almost without exception those schools which do include grammar in the documents studied. However, among the schools not listed very many announced "the English School," "the branches usually taught in English Schools," "the lower and higher branches of English," "all branches of English," "the ordinary branches of English," or used similar phrases. We may conclude that the private schools of North Carolina were very generally laying stress upon grammar before 1840.

#### 4. THE STATUS OF GRAMMAR, 1850 TO 1870.

In spite of the fact that an enormous number of grammars were sold every year in the middle of the nineteenth century, they were used mostly in the intermediate and high schools of the larger and more prosperous towns, and at best only in a perfunctory way in the schools of smaller communities.

#### PENNSYLVANIA.

A body of data concerning the status of the common schools of Pennsylvania seems to bear out this conclusion for that State. In 1854 the legislature passed a law requiring instruction in grammar<sup>21</sup> and obliged each county superintendent to submit an annual report to the superintendent of common schools.<sup>22</sup> In the following year all but a few counties complied.

Examination of these reports shows that there is almost universal evidence of scarcity of good teachers; that many who applied to take the examinations were rejected; that many times teachers who were deficient in grammar and geography had to be accepted. Out of 50 counties 28 county superintendents comment on the difficulty of securing competent teachers of any subjects, 39 upon the incompetency of teachers applying for examination in grammar. For example, in Bucks County 270 teachers were examined; certificates were granted to 20 who were deficient in English grammar on their promise "that they would make themselves acquainted with this subject during the year."<sup>23</sup> In Bradford County "out of 500 teachers examined . . .

<sup>21</sup> "It shall be the duty of each county superintendent to see that in every district there shall be taught orthography, reading, writing, English grammar, geography, and arithmetic. . . ." *Laws Com. Pa.*, 1854, 625.

<sup>22</sup> *Ibid.*, 627.

<sup>23</sup> *Pa. Com. Sch. Rept.*, 1854, 25.

one-fourth fell below the standard required by law."<sup>24</sup> Center County was compelled to issue many certificates from which English grammar and geography were stricken out.<sup>25</sup> Especially suggestive is the statement from Clearfield County:

I find many who can go through the grammar and repeat every rule and conjugate every verb correctly and can not analyze and parse the most simple sentence.<sup>26</sup>

The foregoing are fairly typical replies.

The superintendent of Adams County found that general opposition to the new school law lay in the requirement that English grammar and geography should be taught. He affirmed that "none of the parents wish their children to study English Grammar and Geography."<sup>27</sup> He allayed the opposition by explaining that the law required grammar in every county but not in every school. This is typical of many references to hostility toward the subject; very few counties report favorable instruction in the subject, and that in the academies and larger schools. All these facts lead to the inference that English grammar as such had little place in the large majority of the common schools of Pennsylvania. To be sure, the law was new. The relative emphasis upon grammar and other higher branches in New York at this period indicates the effects of 25 years of legal requirement of the branches in the latter State as compared with the absence of such requirement in Pennsylvania. In the latter the report of Indiana County states what seems to have been near the general truth:

A rough knowledge of spelling, reading, writing, and ciphering is deemed all sufficient, whilst a knowledge of grammar, geography, etc., is most heartily repudiated.<sup>28</sup>

In short, the Pennsylvania reports show that the schools were by no means fitted to give good instruction in grammar. Thirty-nine counties report grossly inadequate instruction; 29 say they have to accept whoever applies; 20 complain of hopeless variety of textbooks and incompetent grading; 18 speak of decided opposition to grammar; 14 say that local inspectors, being unpaid, are unsatisfactory; 11 mention wretched buildings; only 3 reports are really commendatory, although many are optimistic concerning the ultimate effect of State aid, certification of teachers, and other new features of the law.

<sup>24</sup> Ibid., 19.

<sup>25</sup> Ibid., 38.

<sup>26</sup> Ibid., 47.

<sup>27</sup> Ibid., 4.

<sup>28</sup> Ibid., 15. The superintendent of Bucks County, in one school, saw 9 classes recite in the following order: One scholar in Swain's Reader; 12 in Frost's History; 1 in Emerson's First Class Reader; 1 in Comley's Reader; 1 in Emerson's Third Class Reader; 2 in Emerson's Rhetorical Reader; 1 in Comley's Spelling Book; 2 in The Primer; 2 in The A B C's. The same program was repeated in the afternoon. Ibid., 28.

## NEW JERSEY.

The status of grammar in the common schools of New Jersey during the decade 1850 to 1860 may be seen by an examination of the reports of the State board of education for three representative years—1850, 1854, and 1860. The total number of references in these reports concerning the curriculum include statements from 12 of the 21 counties and from 19 different townships which specifically mention grammar. In 1850 Bergen County reports “grammar, history, arithmetic taught orally to young pupils” in Hackensack Township; <sup>29</sup> of 154 boys and 152 girls in Northampton Township, Burlington County, 66 were studying grammar, <sup>30</sup> and of 150 pupils, 50 were studying grammar in Southampton Township. <sup>31</sup> The superintendent of Hunterdon County reports that a few pupils only study grammar. <sup>32</sup> An interesting sidelight, indicating that in certain quarters the subject was regarded as the capstone of the common-school curriculum, is found in the following statement of the superintendent of Woodbridge Township, Middlesex County: “There are taught all the subjects usually taught in the schools, from the alphabet to English grammar.” <sup>33</sup> Of reports from 175 townships, in 1851, only five cited above speak of grammar. However, the subject is mentioned by every officer who mentions the curriculum at all.

The following table giving the distribution of pupils by subjects in seven districts of Wall Township, Monmouth County, is enlightening as showing the relatively small number of pupils studying grammar, which, as we have seen, was regarded as one of the higher branches in the common schools. <sup>34</sup>

	District.							Total.
	1	2	3	4	5	6	7	
Number of pupils.....	40	81	50	61	68	40	92	432
Average attendance.....	20	42	30	36	40	25	42	285
Alphabet.....	1	9	4	6	5	1	5	31
Spelling.....	27	70	25	30	60	25	37	274
Reading.....	25	55	20	30	60	20	32	237
Writing.....	12	30	10	16	40	20	25	153
Arithmetic.....	12	12	14	15	30	15	15	113
Beyond division.....	10	4	6	10	20	7	6	63
Geography.....	4	3	4	5	8	4	6	35
Grammar.....	2	4	2	5	6	2	3	24
Defining words.....						7		7
Philosophy.....				1				1

In 1860, 205 townships in 21 counties show meager evidence as to grammar being a part of the curriculum, only eight townships referring definitely to it. Roswell Smith's grammars predominate, and there is constant indication that the subject is taught as a higher

<sup>29</sup> Rept. State Supt., 1851, 32.

<sup>30</sup> Ibid., 41.

<sup>31</sup> Ibid., 45.

<sup>32</sup> Ibid., 63.

<sup>33</sup> Ibid., 85.

<sup>34</sup> Ibid., 1854, 127.

branch, only very few pupils pursuing it. The conclusion which must be reached is that grammar was but indifferently taught in New Jersey, only in the better common schools, with less than one-tenth of the pupils studying it. This is entirely consistent with the status of the subject in Pennsylvania during the same period.

#### NEW YORK.

The showing of New York for the decade in question is more favorable. The State was evidently far in advance of Pennsylvania and New Jersey.<sup>35</sup>

In comparing with the adjoining States it needs to be remembered that the academies of New York are higher schools than the common schools considered in Pennsylvania and New Jersey. Data concerning the status of grammar in the common schools of New York are not available after 1839; but even as early as 1826-1839 the showing for grammar in common schools in New York far surpasses that of the two other States named even for 20 years later.<sup>36</sup>

Regents' reports of New York, covering the condition of grammar for the period, 1865 to 1874, in the academies, show the complete passing of the grammars of the old guard (with the exception of Gould Brown's, Murray's, Kirkham's, Smith's, and Webster's). The newer grammars of the middle of the century have taken their place, as will be seen from the following table:<sup>37</sup>

	1865	1866	1867	1868	1869	1870	1871	1872	1873
<b>Brown</b> .....	72	66	75	61	62	58	52	54	51
<b>Smith</b> .....	3	3	1						
<b>Bullion</b> .....	24	20	26	30	30	35	30	35	35
<b>Clark</b> .....	55	56	58	53	45	34	36	34	34
<b>Weld</b> .....	17	13	14	10	10	6	7	6	5
<b>Greene</b> .....	13	9	7	13	12	12	17	21	25
<b>Quackenbos</b> .....	25	25	29	26	17	20	17	16	11
<b>Keri</b> .....	13	26	30	28	28	32	34	31	50
<b>Swinton</b> .....								5	12
<b>Scattering</b> .....	4	4	4	5	3	4	7	6	7

<sup>35</sup> The following table continues the table on page 83 through the years 1850 to 1856, inclusive.

	1851	1852	1853	1854	1855	1856
<b>Year</b> .....	168	170	169	173	165	176
<b>Academies reporting</b> .....	19,552	20,920	22,670	22,778	18,051	20,860
<b>Number of students</b> .....						
<b>Grammars:</b>						
Murray.....	2	1	1	0	1	1
Kirkham.....	17	9	3	3	2	0
Brown.....	66	68	77	75	75	80
Smith.....	21	22	18	16	13	21
Bullion.....	60	55	52	53	54	54
Webster.....			1	5	1	
Spencer.....	7	5	6	7	5	4
Wells.....	15	13	14	10	5	6
Clark.....	8	10	9	12	11	15
Weld.....	21	19	19	21	18	14
Greene.....	7	4	3	4	2	7
Kenyon.....			5	2	2	2
Scattering.....	16	11	10	12	15	12

Compiled from Regents' Reports, 1852-1857, inclusive. The 1855 figures represent two-thirds of the year.

<sup>36</sup> See p. 84.

<sup>37</sup> Reg. Rep., 1876, 439.

The new grammars of Quackenbos and Kerl have attained prominence, and Swinton's "Language Lessons," of 1873, which was to revolutionize the teaching of the subject, is seen just entering the academies. The fact is significant that the total number of grammars reported is considerably diminished, even though the number of academies is increased. This means that the place of the subject in the curriculum has become more stable.

Some light can be thrown on the status of grammar in the academies during this period by reports of regents' examinations. The percentage of those passing in grammar is noticeably lower than in arithmetic, geography, and spelling, the three other subjects used.<sup>39</sup>

#### OHIO.

In Ohio, 1852, the 26 townships of Licking County taught English grammar.<sup>39</sup> That the instruction was largely perfunctory in some of the rural counties, at least, is evidenced by the superintendent of Pike County, who reported:

That our children should learn to read and write, and occasionally, in large towns and cities, to the highly favoured, may be added, by way of luxury, a little sprinkling of Geography and Grammar, answers almost universal custom.<sup>40</sup>

That this man somewhat underestimated the universal custom is shown by the report of the State commissioner for the year 1856, summarizing the number of pupils instructed in the various branches. The total number of "unmarried" children of school age (5 to 21) in the State was 799,666; of these, 561,315 were enrolled in the schools; the average attendance was 322,643.<sup>41</sup> The distribution of these by subjects is as follows:<sup>42</sup>

	1856.	1857.
Penmanship.....	249, 002	271, 440
Mental arithmetic.....	82, 640	112, 744
Written arithmetic.....	166, 665	187, 290
Geography.....	90, 784	108, 270
English grammar.....	63, 414	75, 353
Composition.....	15, 201	21, 916
History.....	5, 824	6, 759
Algebra.....	5, 790	7, 644

<sup>39</sup> *Percentage of students passing in grammar in New York academies, 1866 to 1878.*

	1866	1867	1868	1869	1870	1871	1872
Number examined.....	12, 939	12, 266	11, 780	11, 322	12, 286	13, 063	15, 442
Number passed.....	5, 306	5, 354	4, 861	3, 251	3, 276	4, 161	6, 118
Per cent passed.....	4. 1	8. 65	30. 97	28. 71	26. 66	31. 85	39. 61

Ann. Rept. Regt. Univ. N. Y., 89, 472.

<sup>40</sup> Rept. Sec. State, Com. Sch., 1852, 40.

<sup>41</sup> Rept. of Sch. Comm., 1857, 86.

<sup>42</sup> Ibid., 51.

<sup>43</sup> Ibid., 89.

	1856.	1857.
Rhetoric .....	404	929
Latin .....	675	1, 319
Greek .....	113	159
German .....	903	1, 320
French .....	180	250
Zoology .....	675	688

This table, indicating that approximately one-fifth of the pupils were studying grammar, seems to warrant the assertion that the subject was almost universal, including quite as large a percentage of pupils as in New York and Massachusetts. This conclusion must be qualified by two facts: First, undeveloped counties, like Pike<sup>45</sup> and Gallia,<sup>46</sup> report that, with very few exceptions, reading, writing, and arithmetic are "all the pupils are expected to acquire"; second, there is frequent complaint that teachers are incompetent, especially in grammar and geography. In 1858 the State commissioner said: "As the chief of all causes of poor schools, *poor teachers* stands out. That one-half, or one-tenth (*sic*), even of the thousands of teachers in Ohio are in all respects what their profession demands no one can justly claim."<sup>45</sup>

The status of English branches in academies of Ohio in this decade (1850-1860) may be seen in the reports of typical academies made to State officials:<sup>46</sup>

Academy.	Ancient lan- guages.	Modern lan- guages.	Higher English branches.
Seneca County .....	20	—	150
Western Reserve .....	75	8	190
Pomeroy .....	22	—	27
Gallipolis .....	12	20	40
Kingsville .....	65	37	142

#### NEW HAMPSHIRE

The status of grammar in New Hampshire schools in 1850-1852 is indicated by the report of the county commissioner of Rockingham County for the year 1851. The commissioner had been conducting a campaign against the multiplicity of schoolbooks and had succeeded in inducing his various town committees to recommend uniform books for the use of all the schools in their towns. He records, town by town, the grammars represented. Thirty towns report. Of these, 2 do not mention books recommended; only 1 other does not mention a grammar. Of the remaining 24 towns, preference is shown in 14 for W. H. Wells's Grammar; in 7 towns for Roswell

<sup>45</sup> Ibid., 1852, 49.

<sup>46</sup> Ibid., 1858.

<sup>46</sup> Ibid., 1858, 61.

<sup>46</sup> Rept. State Com. Ed., 1858, 168, 67, 68, 61, 59.

ambiguous, because a number of the cities are listed in the above table as giving grammar whose educational statutes, printed in the same volume, do not require it. Among them are Boston, Chicago, and Cincinnati, which, according to the statutes, had grammar in the high school only as an incidental study; yet these cities are listed in the table as teaching grammar in the high school. This fact indicates the only inference that can safely be drawn from the table, namely, that 23 of the 29 cities prescribe grammar in some form, either (1) as a regular subject, supplementing a two or three year course in the intermediate schools, as in New Haven, or (2) as a review course, lasting one or two terms, as in New York, or (3) as incidental or supplementary work in connection with composition or rhetoric, as in Boston, Chicago, and Cincinnati.

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pupils "repeat orally and in writing, in their own language, the substance of each lesson"; in the grammar department of three years "they shall be taught all the lessons in Butler's Large Grammar to syntax. They shall also be taught to parse words in simple sentences not found in the grammar." This is for the first year. In the second "the same . . . to prosody; to compare adjectives and adverbs, to decline nouns and pronouns and to conjugate verbs, in writing. They shall also be taught to parse all the parsing exercises in said lessons and to parse words in sentences not found in the grammar." For the third year Butler's grammar was prescribed complete. The girls' high school had English grammar and composition throughout the first year. The boys' high school seems to have had no grammar.

Philadelphia had no grammar in the four years of the primary or five years of the secondary departments. In the grammar-school department of five years the instruction was the most elaborate the writer has found. In the first and second years Hart's "Introduction" or Parker's through the nine parts of speech, including the simple rules of syntax; in the third year Hall's or Parker's introductory work completed and construction of simple sentences within the same limits; in the fourth year Hall's or Parker's English Grammar commenced and continued to the rules of syntax; parsing and construction of sentences and correction of false syntax; in the fifth year Hall's or Parker's completed and reviewed. Directions for teachers are: "The disputed points or matters far above the pupils' capacity should never be dwelt upon. The teacher's object must be rather to impart such a knowledge of the construction of the language as will enable the pupil to speak and write with a reasonable degree of correctness."

\* Am. J. of Ed., 1870, 643.



## Chapter V.

### TRADITIONAL METHODS OF TEACHING LATIN GRAMMAR TRANSFERRED TO ENGLISH GRAMMAR.

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#### PRELIMINARY CONSIDERATIONS.

From the very beginning it seems that English grammar was intended to perform for the mother tongue the same functions Latin grammar performed for that language. The aim of grammar schools—to make finished writers and speakers of Latin—was paralleled by the aim of English schools in America, patterned after Franklin's Academy—to make finished writers and speakers of the vernacular. In each the grammatical study of the languages was fundamental. As the requirements of practical life in America seemed to demand less Latin and more English, and as the English schools more and more took on the dignity formerly held by the Latin schools, English grammar advanced correspondingly to a more prominent place in the curriculum. This identity of function is powerfully supported by the striking similarity in content and in methods of study as expounded by textbook makers.

The present and the succeeding chapter trace the changes in methods of teaching which have marked the successive stages of English grammar in American schools between 1750 and 1850.<sup>88</sup> Roughly, this aspect of the study may be outlined in two grand divisions, each consisting of three subdivisions of approximately 25 years:

#### I. Grammar as an art.

- (a) Latin period, 1750 to 1784.
- (b) Rote period, 1784 to 1823.
- (c) Parsing period, 1823 to 1847.

#### II. Grammar as a science.

- (a) Analysis period, 1848 to 1873.
- (b) Rhetorical period, 1873 to 1891.
- (c) Incidental study period, 1891 to 1920.

The two main divisions are based upon the fundamental conception of grammar held by the leading grammarians.<sup>89</sup> About 1850 the idea

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<sup>88</sup> A later study will carry the investigation down to 1920.

<sup>89</sup> The term "leading grammarians" is perhaps misleading. The connotation intended is to designate authors leading in influence upon school practices. In this sense Murray is the leading grammarian in this country up to 1850. The date of his textbook (1795) is not selected as a dividing point in the outline, because the date of Webster's Grammar

that grammar is an art was changed to the idea that grammar is a science. To the various subdivisions names have been given on the basis of the one method predominating during the period involved. The chronological limits of the periods have been marked by the date of an innovating textbook of widespread influence or by some other important or culminating event explained in the course of the discussion.

The year 1848 does not mark a sharp breaking away from the conception of grammar as an art, for progress in methods of teaching can not be marked by exact dates. Long before any important change becomes prevalent in all or in almost all schools, far-seeing teachers are discarding the old and experimenting with the new. For instance, before 1848 some grammarians had substituted the sentence for the word as the unit of instruction; long after 1848 many textbook makers clung tenaciously to the word as the unit of study. Grammarians earlier than Greene (1848) had made their point of departure the analysis of sentences; but Greene seems to have come at the opportune moment, when schoolmen were aroused, when disgust with old methods had reached a crisis. His book became exceedingly popular; he had many followers. The date of his grammar marks the chief turning point in our discussion of methods. In a similar way the significance of the major event which marks each step in the outline will be considered in detail through 1850. The point to be borne in mind is that great changes in methods are not instantaneously inaugurated; they are matters of slow and painful growth.

One further word of explanation. The names given to the six periods are titles of predominating methods. A possible criticism of this nomenclature is that parsing, for example, is as old as grammar itself and will continue in some form as long as grammar is studied. Granted that this is true. The evidence presented for the years 1823-1848 seems to indicate that amid the passing of the old and the coming in of the new methods parsing was the method par excellence. The same comment is pertinent to all the other periods except the first. The confusing element here is that Latinized methods exerted a strong influence in a great majority of schools through the entire nineteenth century and are with us to-day, though happily in diminishing emphasis. Noah Webster was right when he said that it requires the club of Hercules wielded by the arm of a giant to destroy the hydra of educational prejudice.

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(1784) more closely approximates the close of the Revolution. Moreover, in influence upon the schools Webster and Murray were very similar. Regarded in another sense, Murray was far from a leading grammarian, for he was a confessed compiler, frankly indebted to Lowth, Priestley, and the British grammar. He was a follower, not a leader, in constructive grammatical scholarship, being in this regard below Noah Webster. Throughout this chapter grammatical thinkers have our attention only in so far as it can be shown that they exerted a direct influence upon the school practices of their day.

The methods of the early Latinists <sup>11</sup> seem to have cast their baneful influence over the entire four centuries during which the vernacular has been building for itself a suitable grammatical study. At any rate, the Latin and the Rote periods are really one and the same. The writer has no particular pride in maintaining strict chronological balance in his outline, except that he thinks it helpful to divide the period 1750 to 1823 into two parts. The other five periods are useful limitations both as to time and title. The following study of the interrelations of these periods may throw some light upon what has been heretofore a confused and confusing field.

### 1. GRAMMAR AS AN ART.

An examination of a series of definitions of grammar taken from influential textbooks <sup>12</sup> indicates that grammar was considered an art in the texts which determined the earliest instruction in America.

Ben Johnson: Grammar is the art of true and well-speaking a language; the writing of it is an accident.<sup>13</sup>

Lilly: Grammatica est recte scribendi, atque loquendi ars.<sup>14</sup>

Wharton: Grammar is the Art of Writing, and Speaking, well.<sup>15</sup>

Brightland:

Grammar do's all the Art and Knowledge teach,  
According to the Use of every Speech,  
How our Thoughts most justly may express  
In Words, together join'd, in Sentences.<sup>16</sup>

Greenwood: Grammar is the Art of Speaking rightly. I have left out the Art of Writing, because that is an Accident of Speech, and none but the essential or chief Things ought to be put into a definition.<sup>17</sup>

Dilworth: Grammar is the Science of Letters, or the Art of Writing and Speaking properly and syntactically.<sup>18</sup>

Fisher: Grammar is the Art of expressing the Relation of Things in Construction, with due Accent in Speaking, and Orthography in Writing, according to the Custom, of those whose Language we learn.<sup>19</sup>

British: Grammar is the Art of Expressing the Relations of Words in Construction, with due Quantity in Speaking and Orthography in Writing.<sup>20</sup>

Lowth: Grammar is the Art of rightly expressing our Thoughts by Words.<sup>21</sup>

Priestley: The grammar of any tongue is a collection of observations on the structure of it, and a system of rules for the proper use of it.<sup>22</sup>

<sup>11</sup> "Latinists" is the term repeatedly used by Franklin.

<sup>12</sup> An attempt is made here to select for comparison books which immediately preceded the beginnings of grammatical instruction in America: First, books upon which English grammar was founded; second, books which, printed in England in the eighteenth century, were imported or reprinted in America and used as textbooks; and, third, books written by American authors which were most influential before 1825. The text selected and the editions used are named in the bibliography.

<sup>13</sup> Lilly, op. cit., 1.

<sup>14</sup> Johnson, op. cit., 3.

<sup>15</sup> Wharton, op. cit., 1.

<sup>16</sup> Brightland, op. cit., 1.

<sup>17</sup> Greenwood, op. cit., 48.

<sup>18</sup> Dilworth, op. cit., 85.

<sup>19</sup> Fisher, op. cit., 1.

<sup>20</sup> British, op. cit., 1.

<sup>21</sup> Lowth, op. cit., 1.

<sup>22</sup> Priestley, op. cit., 1.

Alexander: Grammar teaches the Art of expressing and communicating our thoughts with verbal propriety.<sup>33</sup>

Murray: English Grammar is the art of speaking and writing the English language with propriety.<sup>34</sup>

Webster: Grammar is the art of communicating thoughts by words with propriety and dispatch.<sup>35</sup>

Brown: English Grammar is the art of speaking and writing the English Language correctly.<sup>36</sup>

Brightland uses the definition "Art and Knowledge, according to the Use of every Speech, how we our Thoughts express in Sentences"; that is, the idea—knowledge of the use of language in sentences—seems to be prominent. But our feeling that the author of Brightland's textbook may have had an inkling in 1706 of the modern conception of grammar as a science is quickly dispelled. We find him explaining in a footnote: "The modern as well as the old grammarians have given us various Definitions of this useful Art."<sup>37</sup> Greenwood, who is a close follower of Jonson, in his edition of 1711, calls writing an accident; but in his third edition (1747) he changes his definition to "English Grammar is the art of speaking and writing the English language with propriety." This definition Murray copies exactly.

Dilworth uses the word "science," but he speaks of the science of letters, which he considers the art of speaking and writing properly. Priestley certainly states the modern conception in his definition, but his apparant insight is misleading, for, in spite of certain innovations in method to be considered later, he treats grammar as an art. The true nature of grammar had apparently not even remotely suggested itself to Webster when in 1784 he wrote his first grammar. At that time his definition is: "Grammar is the Art of communicating thought." By 1790 the light seems to have dimly dawned upon him, for in the preface to his "Rudiments of Grammar" he affirms: "Rules are drawn from the most general and approved practice, and serve to teach young students how far their own practice in speaking agrees with the general practice."<sup>38</sup> In a later grammar (1831) he goes still further. His definition now is: "A system of general principles, derived from the national distinction of words, deduced from the customary forms of speech in the nation using that language."<sup>39</sup> Here, certainly, Webster has gone far toward the modern conception that grammar comes after a language has been in use; that it is a statement of principles of usage as found in the spoken and written communication of the most expert. The principles of this science are to be found by minute analysis of wholes into parts, with consequent

<sup>33</sup> Alexander, *op. cit.*, 3.

<sup>34</sup> Murray, *op. cit.*, 7.

<sup>35</sup> Webster, *op. cit.*, 5.

<sup>36</sup> Webster, *An Improved Gram. of the Eng. Tongue*, 3.

<sup>37</sup> Brown, *op. cit.*, 15.

<sup>38</sup> Brightland, *op. cit.*, 1, footnote.

<sup>39</sup> Webster, *Rudiments*, 2.

generalizations to establish general principles. But Webster at first apparently had only a mere glimmer of the truth. He treated grammar as an art of building up wholes from smaller parts.

Finally, Goold Brown, whom we shall see even as late as 1851 the last prominent fighter of the old guard, still championed the conception of grammar as an art when nearly everyone else had abandoned it. He said in 1823: "Grammar is the art of speaking and writing the language correctly." This was the common conception held by grammarians up to the middle of the nineteenth century.

The force which fastened this conception so firmly is undoubtedly the force of tradition. Even the word grammar is from the Greek *gramma*, a letter. These characters are the elements of written language, as articulate sounds are the elements of spoken language. Hence, from the very derivation of the word, one seems bound to start with the simplest elements and build up the more complex forms. The natural and easy way to learn had always seemed to be to proceed from the element to the complex structure. Letters, syllables, words, sentences—this makes a seemingly more logical sequence than the reverse process. The child says "water" if he is thirsty. To-day it is recognized that he means a sentence—"I want water." Consequently the process of learning in both reading and writing (composition) to-day proceeds from the whole to the part. But to attain this new conception has been a matter of slow and painful growth. In it we have come to realize that grammar, the science of sentences, is a matter of late study, if, indeed, it need ever be taught to children trained by imitation to speak and write accurately.

The truth is that the term grammar—the art of letters—is a misnomer, considering our modern conception of the subject. However, our intent here is merely to state the apparent cause of the earlier misconception.

## 2. METHODS USED IN STUDYING LILY, AND LATIN GRAMMAR IN GENERAL, SEVENTEENTH CENTURY.

We shall now consider how the methods of study pursued in Latin grammars were carried over into the study of English. In "The Epistle to the Reader," in all editions of Lily, we find specific recommendations as to classroom procedure.

First, Colet urges that progress be very slow; "also that there be liberal oral rehearsing of all parts until they be perfectly mastered mechanically."<sup>1</sup> Perfect "without book" is an expression one meets

<sup>1</sup> "The first and chiefeest point is, that the diligent master make not the schollar haste too much." Lily, Epistle, 2.

<sup>2</sup> "Make him to rehearse so, that until he hath perfectly that, which is behinde, he suffer him not to go forward; . . . the best and chiefeest point . . . is, that the schollar have in minde so perfectly that, that he hath learned, and understood it so, that not only it be not a stoppe for him, but also a light and helpe unto the residue that followeth." Ibid.

again and again in pedagogical discussions of the time.<sup>92</sup> This was to be accomplished by numerous repetitions, frequent rehearsals, and periodical examinations by the teacher.<sup>93</sup>

In this laborious fashion the pupil is to make himself master of every declension of nouns and conjugation of verbs. He is to be able to decline and conjugate forward and backward.<sup>94</sup> Until this is done the pupils are not allowed to go forward.

From this mastery of paradigms the pupil is to pass to an equally difficult study of the "concordes." These are to be learned with "plaine and sundrie examples, and continuall rehearsall of things learned, and especially the daily declining of the verb, and turning it into all fashions."<sup>95</sup> Schoolmasters are advised that subsequent lessons will be easy if "the foregrounds be well and thoroughly beaten in."<sup>96</sup> Probably no pun was intended, but the phrase perhaps gave church authority for a common method of persuading reluctant pupils to their tasks.

After these studies of the concords the pupil is to "learn some petty book containing . . . good plain lessons of honesty and godliness."<sup>97</sup> Then is to follow the translation of English sentences from the book into Latin and the learning of the rules of syntax which govern the construction. The Latin sentences are to be repeated in the words of the book.<sup>98</sup> This sets another premium upon slavish memorizing. In all this the pupil is never to be idle, but "alwaies occupied in a continual rehearsing, and looking back again to those things they had learned."<sup>99</sup> Constant reviewing is the unbroken order of the day. Every process is based upon knowledge of the rules.<sup>100</sup>

<sup>92</sup> "That they have dally some speccall exercise of the memory, by repeating somewhat without booke; as a part in their rules the foure first daies of the weeke . . . all the rules of the weeke on the Saturday." Brinsley, *Ludus Literaris*, 51.

<sup>93</sup> In East Retford the first part of the morning in the first four days of the school week was devoted to saying over "one of the Eight Parts of Speech like as the manner and fashion of all grammar Schools, and upon Friday Sum es tul, with his compounds, as shall seem to the School-master convenient." Carlisle, *op. cit.*, II, 282, Statutes, 1552.

<sup>94</sup> "This is all that I have used: To let them reade it (The Accidence) over every one by himselfe by lessons. . . . Thus I make them reade over their Accidence . . . before they do get it without booke. Secondly, for getting it without booke, I cause them . . . to say it as off as they can." Brinsley, *op. cit.*, 53.

<sup>95</sup> "Wherein it is profitable, not only that he can orderly decline his nounes, and his verbe, but everyway, forward, backward, by cases, by persons: that neither case of nounes, nor person of verbe can be required, that hee cannot without stoppe or studie tell. And unto this time I count not the schollar perfect nor readie to go any further. . . ." Lily, *op. cit.*, 3.

<sup>96</sup> *Ibid.*

<sup>97</sup> *Ibid.*, 3.

<sup>98</sup> *Ibid.*, 4.

<sup>99</sup> "Therefore (from the book) take some little sentence, as it lieth, and learne to make the same out of English into Latine, not seeing the booke, or construing it there upon . . . which sentence well made, and as nigh as may be with the wordes of the booke." Lily, *op. cit.*, 3.

<sup>100</sup> *Ibid.*, 4.

<sup>100</sup> "If the maister give him an English booke and cause him ordinarily to turne it every day some part into Latine. This exercise cannot be done without his rules." *Ibid.*, 4.

The final step is teaching pupils to speak Latin. This is to be accomplished by drill until "a man is clean past the use of this grammar booke," until he is as "readie as his booke." Then he is perfected "in the tongue handsomely."<sup>1</sup>

In order to determine more certainly what the classroom practices of the early Latin study were, we may supplement the summary of suggestions of Colet, in Lily, with the advice of the schoolmaster, Brinsley. His book was written in 1612, when Lily was most popular in the grammar schools. It may be taken as reliable evidence of the practice of his day, perhaps in the most advanced practice. In "The Grammar School" Brinsley devotes a chapter to the topic "How to make children perfect in the Accidence." The following chapters discuss the other parts of instruction in Latin. Brinsley's exposition appears to be entirely consistent with Colet's, given above. He has his pupils (1) read over their lessons many times; (2) learn every rule, with title, "without booke"; (3) recite, one by one; (4) get accidence without book; (5) repeat the beginnings of rules in a connected title, "without booke" (he insists that the principal duty is to get rules without book); (6) go through weekly repetitions to prevent forgetting; (7) learn very little at a time (the pupil is to be letter-perfect in each part before proceeding); and (8) answer questions in the book.

He has the master (1) explain difficult parts, construe and show meanings; (2) use the question-and-answer method; (3) constantly call for examples of rules—the examples given in the book; (4) hear parts, making the pupil repeat his rule; (5) spend a month in making the accidence perfect; (6) give continual practice in parsing; (7) keep the rules in mind (by making scholars learn perfectly, constant repetition, continual care for parts, repeating often the summes of rules, applying examples); (8) endeavor to make the grammar a dictionary in their minds; (9) apply a prescribed formula for construing (construe the vocative first, the principal verb next, then the adverb, then the case which the verb governs, and, last, the substantive and adjective); (10) hear them parse every word as they construe, accompanying the parsing with rule and example; (11) follow by theme writing and verse making; and (12) give constant practice in the upper forms in speaking Latin.<sup>2</sup>

<sup>1</sup> An interesting pedagogical doctrine, certainly sound, appears paradoxically in the midst of this insistence upon minute mastery of details. It is a caution against mere rote memorizing. "This when he can perfectly doe, and hath learned every point, not by rote but by reason, and is cunninger in the understanding of the thing, than in rehearsing of the words . . ." Lily, *op. cit.*, 3. Thus as early as 1541, at least, was uttered a protest against what was to be for nearly three centuries the curse of all grammar teaching in the mother tongue.

<sup>2</sup> Brinsley, *op. cit.*, 53-145.

In this list the endeavor has been to select 20 of the leading principles of instruction advocated by Philoponus, the character in Brinsley's dialogue, who represents the better type of teaching.<sup>3</sup> In some cases the suggestions have been taken from the mouth of Spondeus, the representative in the dialogue of the poorer teachers of his day.

To the testimony of Colet and Brinsley may be added the practices of Roger Ascham in teaching Latin grammar, as set forth in "The Schoolmaster," 1563.

(A) Preparatory: Learn perfectly the eight parts of speech and the joining together of substantives with adjectives, verbs with nouns, relatives with antecedents.

(B) Double translation: 1. The master is to construe the model book for the child that he may understand.

2. Then the pupil is to parse and construe, as the master has done for him, often enough for the pupil to understand.

3. The lesson is to be translated into English in a paper book.

4. After an hour he is to translate his English back into the Latin in another paper book.

5. The master is to examine these translations and lead the pupil until he is able "to fetch out of his grammar every Rule for every example; so as the grammar book be ever in the scholar's hands, and also used of him as a Dictionary for every present Use."

6. The master is to compare the pupil's Latin with the original in the model book.

"With this way of good Understanding the matter, plain construing, diligent parsing, cheerful admonishing, and heedful amending of Faults; never leaving behind just praise for well doing: I would have the Scholar brought up."

(C) Analysis: 1. Give him longer lessons to translate. "Begin to teach him, both in Nouns and Verbs, what is Proprium, and what is Translatabum (figurative), what Synonym, what Diversion, which be Contraria, and which be most notable Phrases, in all his Lecture (reading)."

2. Let him write four of these forenamed six diligently marked out of every lesson in a third paper book.<sup>4</sup>

(D) Reading: 1. "I would have him read now, a good deal at every Lecture, some book of Cicero, Cæsar, etc."

2. "He shall now use daily Translation, but only construe again and parse. . . . Yet let him not omit in these Books his former Exercise, in mastering diligently and writing orderly."

<sup>3</sup> An admirable statement of the methods used in the grammar schools in 1818 appears in Carlisle, "Endowed Grammar School," 1818, 828-30. It begins: "When the Pupil has committed to memory. The Accidence, Propria quæ maribus, etc. . . ." The account tallies in very many details with the methods laid down by Colet and Brinsley, and indicates that Latin instruction had remained in scope and method relatively stable for three hundred years.

<sup>4</sup> Ascham, *The Schoolmaster*, Mayor, 1-9.



3. The master is to translate some easy Latin into good English, the pupil to translate it into Latin again.

4. The master is to compare the pupil's work with the original.

(E) Third kind of translation: 1. The master is to write some letter in English, as if from the boy's father, or copy some fable.

2. The pupil is to translate it into Latin.<sup>5</sup>

### 3. LATIN METHODS CARRIED DIRECTLY TO ENGLISH GRAMMAR. MEMORIZATION.

"The book itself will make anyone a grammarian." Thus spoke Goold Brown in his grammar of 1823.<sup>6</sup> His statement fittingly characterizes the attitude of teachers and writers' throughout the entire course of English grammar down to 1823, and, unfortunately, the same attitude has not entirely disappeared to-day. We have just seen a summary of methods used in teaching Latin grammar. We now turn to the task of showing that they were carried over directly into English in the spirit voiced by Goold Brown as late as 1823.

#### MASTERING PARTS IN ORDER.

This principle is worthy of mention first because it underlies almost all of the methods to be considered later. We have seen that Colet, in his "Epistle," asserts that "the first and chiefest point is, that the diligent Maister make not the scholar haste too much" and that he make him get "perfectly that which is behind" before "he suffer him to go forwards."<sup>7</sup> Brinsley supports this plan. The children are first to get their letters, then to spell, then to join syllables together, then to go through the A B C's and primer, etc.<sup>8</sup> To be sure,

<sup>5</sup> *Ibid.*, 92.

<sup>6</sup> Brown, *op. cit.*, preface, VII.

<sup>7</sup> The efforts of the past century to break away from the Latin methods are reserved for the following chapter. In the preceding section were shown various supplementary devices, parallel reading, dictation, copy books, writing exercises, oral work, dating back to Brinsley, Ascham, Hoole, and Colet. In both the Latin instruction and the first vernacular instruction these devices were strictly subordinated to the great triumvirate of methods—memorization, parsing, and false syntax. They remained strictly subordinate and incidental until about 1850. But during the century preceding 1850 the use of "petty books" gradually evolved into the study of English literature; dictation, the use of copy books, and writing exercises by a similar process of evolution became composition as we now know it, and the simple oral exercises of the earlier day became oral composition of the present. The practice of orations and disputations in Latin, common in both grammar schools and colleges before English entered the curriculum, was very influential in bringing these exercises into English schools.

The process of evolution was but partially completed by 1850, because literature, composition, and oral work were all subordinate to grammar. Beginning about 1850 evolution has made these branches of the vernacular more robust. The best school practice of to-day makes grammatical study strictly subordinate to them. The point is that since 1850 this complete reversal between grammar, on the one hand, and vernacular branches, on the other, has taken place.

This statement, anticipating discussion not covered by this thesis, has been made here in order to place the extremely Latinized methods of the Latin and rote periods in sharp contrast with the best methods of to-day.

<sup>8</sup> Lilly, *op. cit.*, 2.

<sup>9</sup> Brinsley, *op. cit.*, 15 et seq.

he is in this instance speaking of learning to read; but it makes the inference all the more inevitable. In all studies the method was from the part to the whole, each part to be mastered perfectly in order. The pupil reads over and over the small part of the text assigned, forward and backward, until mechanically perfect.<sup>10</sup>

In the beginning of the eighteenth century Brightland and Greenwood (1706 and 1712) urge for English grammar exactly the same procedure.<sup>11</sup> The former describes his method. "We begin with what is first to be learnt, that what follows may be understood; and proceed thus step by step, till we come to the last and most difficult, and which depends on all that goes before it."<sup>12</sup>

Greenwood also indicates the mastery of part by part:

And every Body must readily grant that the Way to come to a true and clear Knowledge of any Art, is to explain Things unknown, by Things that are known.<sup>13</sup>

In the middle of the century, also, the author of the *British Grammar* explains the steps of a recitation:

Spell every word of the lesson, by syllables; give the signification of each word; state the part of speech, with reasons, etc.<sup>14</sup> After the Scholars know their Letters ground them well in their Monosyllables with the soft and hard Sounds of C and G. This they will soon learn from Word of Mouth, by frequent Repetition. . . .<sup>15</sup>

Sewell, toward the end of the century, assigns "small portions to be got by heart,"<sup>16</sup> and Brown, 1823, still continues the practice. "In etymology and syntax, he should be alternately exercised in learning small portions of his book and then applying them in parsing, till the whole is rendered familiar."<sup>17</sup>

The evidence thus presented is in strict accord with the textbook matter of all grammars. So long as orthography, etymology, syntax, and prosody were considered the four divisions of grammar, so long as it was thought of as an art, a whole to be built up "mosaic-like out of paradigms and syntax rules";<sup>18</sup> so long as schoolmasters in general remained woefully ignorant and were competent only "to hear" recitations, verbatim, about matters they little understood,<sup>19</sup> just so long this procedure, tedious and slow, from part to part, was fastened

<sup>10</sup> Ibid., 19.

<sup>11</sup> This is in exact accord with the educational theory of Herbart: "In the case of all essential elementary information—knowledge of grammar, arithmetic, and geometry—it will be found expedient to begin with the simplest elements long before any practical application is made." Herbart, *Outlines*, 129.

<sup>12</sup> Brightland, preface, 7th page (pages unnumbered in text).

<sup>13</sup> Greenwood, preface, 2.

<sup>14</sup> British, preface, XIV.

<sup>15</sup> Fisher, preface, IX.

<sup>16</sup> Sewell, preface, VI.

<sup>17</sup> Brown, preface, VI.

<sup>18</sup> W. D. Wiggery, quoted by Watson, *Gram. Sch.*, 285.

<sup>19</sup> See *Resolutions of Germantown School Committee*, Chap. II, p. 28.

upon the schools. The evidence presented shows little or no progress from Lily (1510) to Brown (1823).

#### MEMORIZING RULES.

Of course, this fundamental principle—mastering each part in order—could give but one meaning for the term mastering; it was slavish memorizing, nothing more nor less.

Colet and Brinsley insist that rules are to be learned and repeatedly rehearsed until pupils can “say, them without book.” This, says Brinsley, is one of the chief points aimed at.

To teach scholars to say without book all the usual necessary rules; to construe the Grammar rules; to give the meaning, use, and order of the rules; to shew the examples, and to apply them; which being well performed, will make all other learning easie and pleasant.”

He insists that the master is to have some exercise of the memory daily <sup>21</sup> and that—

In hearing parts, aske them first the *chiefe* question or questions of each rule in order; then make them every one say his rule or rules, and in all rules of construction, to answere you in what words the force of the example lyeth, both governour and governed.”

Moreover, both Philoponus and Spoudeus agree that this perfect memorizing is the principal method of procedure. Spondeus: “Oh, but this is a matter, that is most accounted of with us; to have them very perfect in saying all their Grammar without booke, even every rule.” Philoponus: “To this I answere you; that this indeede is one principall thing.” <sup>22</sup> This is to be accomplished as follows. Spoudeus: “I have onely used to cause my Schollers to learne it without booke, and a little to construe it . . . by oft saying Parts.” <sup>24</sup>

Greenwood, though advanced somewhat, indicates also the memorizing method. He has a device which avoids the necessity of learning every word of the text. Passages most necessary to be learned at the first going over are marked by an asterisk or star (\*). “By what is to be learned, and what passed by, the discretion of the teacher will better determine.” <sup>25</sup>

That the year 1750 had shown little progress is indicated by Dilworth, who, speaking of learning to spell, holds against spelling by ear. “There can be no true Method of Spelling without Rule.” <sup>26</sup> The British Grammar advises that “it will redound to a Scholar’s Advantage to begin the Repetition of the Grammar as soon as he can read it.” <sup>27</sup> Lowth, too, agrees as to learning grammar.

<sup>21</sup> Brinsley, op. cit., 74.

<sup>22</sup> Ibid., 51.

<sup>23</sup> Ibid., 69.

<sup>24</sup> Ibid., 85.

<sup>25</sup> Ibid., 70.

<sup>26</sup> Greenwood, preface, 5.

<sup>27</sup> Dilworth, preface, VIII.

<sup>28</sup> British, preface, III.

The principal design of a Grammar of any Language is to teach us to express ourselves with propriety in that Language. The plain way of doing this is to lay down rules, and to illustrate them by examples.<sup>28</sup>

And Brown, in 1823, again shows the close adherence to the method of centuries before:

The only successful method of teaching grammar is, to cause the principal definitions and rules to be committed thoroughly to memory, that they may ever afterwards be readily applied.<sup>29</sup>

In 1767 Buchanan, in his "Regular English Syntax," says:

Let them first spell this exercise (some good English classic) off by giving the rules of spelling; next the various significations of the word; let them give account of the parts of speech one by one, applying the rule of syntax.<sup>30</sup>

A commentator on the methods of studying grammar in 1810 thus describes a schoolroom scene:

We learned the first six lines (Young Ladies' Accidence) which contained the names of the ten "sorts of words" and recited them at least 20 times to our neighbors; but, when called to the master's desk to recite them, our minds became a perfect blank. We stood mute and trembling . . . and were condemned to stand on a box with our face to the wall, till we could recite the lesson. Of course, we hated English grammar from that day forward.<sup>31</sup>

The famous Asa Rand comments on methods of his boyhood about 1790:

In the period of my boyhood we had strange notions of the science of grammar. We did not dream of anything practical or applicable to the language we were using every day till we had "been through" the grammar several times and parsed several months. Why? Because we were presented at once with a complete set of definitions and rules which might perplex a Murray or Webster without any development of principles, any illustrations we could understand, any application of the words to objects which they represent. We supposed that the dogmas of our "gram books" were the inventions of learned men, curious contrivances to carry the words of a sentence through a certain operation which we called parsing, rather for the gratification of curiosity than for any practical benefit. The rule in grammar would parse the word, . . . as the rule in arithmetic would "do the sum" and "give the answer." And with such exploits we were satisfied. Great was our admiration for the inventive power of those great men, who had been the lights of the grammatical world.<sup>32</sup>

Also one more witness as to the practice of memory work, after the Lancastrian system was in vogue:

In those days we studied grammar by committing a portion of a small book (Accidence) to memory and reciting it to the teacher. If he was engaged, the lesson was recited to one of the highest class. . . . The rule was that the whole book should be recited literally, three times, before the pupils were allowed to apply a word of it in parsing sentences, and as no explanation was ever made of

<sup>28</sup> Lowth, preface, X.

<sup>29</sup> Brown, VI.

<sup>30</sup> Quoted in Ed. Rev., XII, 491.

<sup>31</sup> C. S. J. (1850), 74.

<sup>32</sup> See Am. Ann. of Ed. and Ins. (1833), 162.

any principle the pupil was as well qualified as the teacher to hear the words repeated."<sup>2</sup>

William Ward, a schoolmaster of 30 years' standing, author of "A Practical Grammar," gives a minute description of the method used in his school about 1780, the public grammar school at Beverley, in the county of York, England:

Our Way of using the Book is this: if a child has not learned any Thing of the Latin Declensions and Conjugations, we make him get the English Forms by heart; if otherwise, we make him read the English Forms several times over, till he remembers them in a good measure; then we hear him read the Descriptions of the several parts of speech; and after he has done so, and has some notion of the Meaning of each, we oblige him for some weeks to read three or four Sentences twice or thrice a Day, in an easy English Book, and to tell the Part of Speech to which each word belongs. When the Child is pretty ready at distinguishing the Parts of Speech, we make him get by heart the Rules of Concord in Verse, and teach him how to apply them, by resolving the Sentences in some English Book. When this is done, we make him write out several of the other rules, and get them by heart, and shew him how to apply them likewise, by parsing, or resolving what he reads by these Rules. And thus by Degrees, children become Masters of all the material Parts of the Book without much Difficulty.<sup>3</sup>

The educational literature of America concerning this period (1750–1823) is filled with evidence that memorizing methods predominated practice. Wickersham quotes a master of 1730 who said: "I find no way that goes beyond that of repeating, both in spelling, reading, writing, and cyphering."<sup>35</sup> A school boy of 1765 records that "at six . . . I learned the English grammar in Dilworth by heart."<sup>36</sup> In 1780 Principal Pearson, of Phillips Andover, testifies that "a class of thirty repeats a page and a half of Latin Grammar; then follows the Accidence Tribe, who repeat two, three, four, five, and ten pages each."<sup>37</sup> A Princeton college youth of 1799 wrote his brother, "committed to memory verbatim 50 pages of English Grammar."<sup>38</sup> Before the Revolution what little grammar was taught in Boston was confined almost entirely to committing and reciting rules.<sup>39</sup>

W. B. Fowle, a prominent schoolman of Boston, says of the schools of 1795: "Pupils at our school were required to learn Bingham's Young Ladies' Accidence by heart three times. . . . We were two or three years in grammar."<sup>40</sup> Murray, author of the grammar most widely used, announced that in later editions he had been careful to rephrase his definitions smoothly, that they might be memorized and

<sup>2</sup> C. S. J. (1850), 337.

<sup>3</sup> Ward, *English Grammar*, preface, X.

<sup>35</sup> Wickersham, *op. cit.*, 214.

<sup>36</sup> C. S. J. (1850), 3.

<sup>37</sup> Quoted, Brown, *Mid. Sch.*, 262.

<sup>38</sup> Correspondence quoted in full, Snow, *Col. Cur.*, 116.

<sup>39</sup> Herman Humphrey, *Am. J. of Ed.*, XIII, 127.

<sup>40</sup> C. S. J. (1850), 5.

retained more easily.<sup>41</sup> The minutes of the trustees of Oyster Bay Academy, New York, prescribe the memorizing method as follows: "(1) The Monitor, to be read daily as the last lesson; (2) Webster's Grammar, to be read or repeated from memory; (3) The Testament or Bible, to be read . . ." <sup>42</sup>

The evidence seems to indicate that the slavish memorization of rules, centuries old in schoolroom practice, had made but little progress from the time of Lily to Gould Brown. It was carried with all its terrors directly into the study of English grammar.<sup>43</sup>

#### DEVICES TO AID IN MEMORIZING.

As complete memorization was the order of the day it is not surprising to find teachers endeavoring to find devices to aid the pupils in this arduous task. So far we have found records of five distinct devices tending to accomplish this purpose.

The first is constant repetition. Colet insists on daily defining rules; "Brinsley strongly urges repetitions."<sup>44</sup> Teachers of the eighteenth century continued the practice of strengthening memory by constant repetition. The British Grammar urges masters to have their pupils repeat the entire grammar in portions once a month,<sup>45</sup> and Sewell especially requires of his pupils frequent repetitions of paradigms.<sup>46</sup>

The second device is rhyming. We have already referred to Brinsley's plan of having pupils read the rules in meter. Rules of politeness in verse were old in Latin and were common in English; for

<sup>41</sup> Murray, 12.

<sup>42</sup> Fitzpatrick, Ed. Views and Inf. of D. Clinton, 22.

<sup>43</sup> An interesting proof of memorization is found in the copy of Alger's Murray, used by the writer, the stereotyped edition of 1825. The book belonged to one George A. Severins; his signature is dated Roxbury, December, 1828. Evidently his teacher had not been satisfied with Murray's definition of grammar and had dictated the following substitute: "Grammar teaches the arrangement of words according to the idiom or dialect of any particular people, and that excellency of pronunciation which enables us to speak and write a language agreeable to reason and correct usages." This is an unusually good definition for 1828 and indicates that this teacher was moving toward the modern conception of the science. But young Severins has written this definition out in full four times on the fly leaves and the blank pages at the end of the book, evidently making sure that he is letter-perfect.

Samuel G. Goodrich, telling of his boyhood school days in Ridgefield, Conn., about 1785, says: "The grammar was a clever book. . . . Neither Master Stebbins nor his scholars ever fathomed its depths. They floundered about in it, as if in a quagmire, and after some time came out of it pretty nearly as they went in, though perhaps a little obfuscated by the dim and dusty atmosphere of those labyrinths." *Am. J. of Ed.*, XIII, 139.

<sup>44</sup> Lily, preface, 3.

<sup>45</sup> "No evening is to be passed without some little exercise against the morning." Brinsley, *op. cit.*, 164. "To imprint it by repetition the next morning, together with their evening exercises." *Ibid.*, 152. A fuller explanation is given by Brinsley of insuring ease in remembering rules: Make the scholars learn them perfectly; give frequent repetition; instill continual care for parts; examine them daily; when parsing, turn every hard rule to use; in higher forms give repetition less often. *Ibid.*, 85. Brinsley also mentions two subdevices. He would have the pupils mark their books, copying from the teacher's book, to assist memory (*Ibid.*, 141) and would have them "read the rules over in a kind of singing voice after the manner of running of the verse." *Ibid.*, 73.

<sup>46</sup> British, preface, III.

<sup>47</sup> Sewell, preface, VIII.

example, in "The Schoole of Vertue,"<sup>48</sup> Brinsley, speaking of verse, says: "To reade them over in a kinde of singing voice after the running of the verse. . . ." <sup>49</sup> Only two of the grammars here intensively studied adopt the method of rhyming for rules—Brightland's and Ward's. The former asserts that he has "put all the Rules into as smooth and sonorous Verse as the Nature of the Subject wou'd bear . . . to give them the greater Light." He adds an explanation in prose following the Jesuit Alvarus in his Latin grammar "which is used in all the Schools of Europe, except England." Brightland maintains that "verse is more easily learnt; that Rhimes help, one end recalling the other." These lessen the burden to memory.<sup>50</sup> In Ward's Grammar rules are put in verses that rhyme, with a repetition in prose of what each rule contains. For the 35 rules of syntax Ward has 170 verses.

The third device to assist memory is the use of examples. Brinsley goes so far as to insist that in recitations the example is to be given with "his" rule.<sup>51</sup> He further makes them give examples:

Apply examples to rules; learn every rule perfectly as they go forward; read them over their rule lelsurely and distinctly; construe the rules and apply examples for them; learn all the rules until the pupil can "beate it 'out of himselfe."<sup>52</sup>

This is a common practice in all the more elaborate grammars. Lowth especially makes point of illustrative examples accompanying each rule.<sup>53</sup>

The fourth device was selection of parts. The first textbook maker who desired to relieve memory by proper selection of parts to be memorized was Greenwood. In his grammar he distinguished the more important parts by printing them in larger type. Fisher did not desire his pupils to be troubled with learning the exceptions to rules.<sup>54</sup> Herein we find further evidence that it had been the practice to require the learning by heart of rules, examples, and exceptions. Murray uses the same device as Greenwood, commenting on the value of selections as follows:

The more important rules, definitions, and observations, and which are therefore the most proper to be committed to memory, are printed in larger type; whilst rules and remarks that are of less importance, that extend or diversify the general idea, or that serve as explanations, are contained in the small letter.<sup>55</sup>

The fifth device is very old, namely, the question and anwer. Hazlitt says that he has small volumes on cookery and gardening of the Middle Ages which are thrown into the interlocutory form, the most apt to impress names on the minds of the pupils.<sup>56</sup> He also gives a

<sup>48</sup> Eggleston, op. cit., 214.

<sup>49</sup> Brinsley, op. cit., 73.

<sup>50</sup> Brightland, preface, VI.

<sup>51</sup> Brinsley, op. cit., 82.

<sup>52</sup> Ibid., 70-1.

<sup>53</sup> Lowth, preface, X.

<sup>54</sup> Fisher, preface, X.

<sup>55</sup> Murray, preface, I.

<sup>56</sup> Hazlitt, Sch. Books and Sch. Masters, 28.

series of rules and exercises in the form of question and answer in a textbook of 1509.<sup>57</sup> Brinsley advocates this method, but has Philoponus complain concerning books of this character—that he has been compelled to leave off entirely; that none are suitable; therefore he has made one for himself “having all the Questions and Answers arising most directly out of the words of the Rules.”<sup>58</sup>

Of the 12 grammars here studied five retain the question-and-answer method—Greenwood's, Dilworth's, Fisher's, the British, and Priestley's. About the end of the eighteenth century the device seems to have gone largely out of vogue. Priestley says: “I have retained the method of question and answer . . . because I am still persuaded it is both the most convenient for the master and the most intelligible to the scholar.”<sup>59</sup> However, the question-and-answer method never had wide vogue in American grammatical textbooks; none of the important grammars which followed Murray seems to have used it. None of the Murray texts, nor Bingham's, nor Brown's, make use of it. About the only signs of advance made by American grammarians before 1800 are, first, the discarding of the question and answer, and, second, the simplification of the elaborate texts into the form of Bingham's *Young Ladies' Accidence*, Alexander's *Grammar*, and Webster's *Rudiments*.

#### SIMPLIFYING TERMS.

Quite in line with the devices enumerated above is the contention, constantly repeated by the various text-writers, that they are simplifying terms for the ease of the pupils. Brightland and his follower, Fisher, have, indeed, some right to make this contention. They discarded the four Latin main divisions—orthography, etymology, syntax, and prosody—and substituted letters, words, and sentences instead. Moreover, they call nouns, names; pronouns, pronames; adjectives, qualities; verbs, actions. They attempt to give definitions and explanations simply. Brightland waxes quite indignant. He claims “glorious improvements,” complains against Greenwood and others for not following him in his previous edition.<sup>60</sup> “Little Progress they made in a Discovery that had so fairly been laid before them by Dr. Wallis and Ourselves: For Custom has so strong a Force on the Mind, that it passes with the bulk of Mankind for Reason and Sacred Truth.”<sup>61</sup> Murray insists that he phrases his rules exactly and comprehensively; also that they may readily be committed to memory and easily retained.<sup>62</sup> For this purpose he has selected terms

<sup>57</sup> *Ibid.*, 90.

<sup>58</sup> Brinsley, *op. cit.*, 87.

<sup>59</sup> Priestley, *preface*, VI.

<sup>60</sup> Brightland's first edition was 1706, Greenwood's 1711.

<sup>61</sup> Brightland, *preface*, I.

<sup>62</sup> Murray, *preface*, 4.



that are "smooth and voluble; has proportioned the members of one sentence to another; has avoided protracted periods and given harmony to the expression of the whole."<sup>63</sup>

Priestley's argument for simplicity is convincing:

I have also been so far from departing from the simplicity of the plan of that short grammar (his first edition) that I have made it in some respects, still more simple; and I think, on that account, more suitable to the genius of the English language. I own I am surprised to see so much of the distribution, and technical terms of the Latin grammar, retained in the grammar of our tongue; where they are exceedingly awkward, and absolutely superfluous; being such as could not possibly have entered into the head of any man, who had not been previously acquainted with Latin. Indeed this absurdity has, in some measure, gone out of fashion with us; but still so much of it is retained, in all the grammars I have seen, as greatly injures the uniformity of the whole; and the very same reason that has induced several grammarians to go so far as they have done, should have induced them to have gone farther. A little reflection may, I think, suffice to convince any person, that we have no more business with a future tense in our language, than we have for the whole system of Latin moods and tenses; because we have no modification of our verbs to correspond to it; and if we had never heard of a future tense in some other language, we should no more have given a particular name to the combination of the verb with the auxiliary shall or will, than to those that are made with the auxiliaries do, have, can, must, or any other.

It seems wrong to confound the account of inflections either with the grammatical uses of the combinations of words, of the order in which they are placed, or of the words which express relations and which are equivalent to inflections in other languages. I can not help flattering myself that future grammarians will owe me some obligations for introducing this uniform simplicity, so well suited to the genius of our languages, into the English grammar.

Priestly bases his revolt against the Latin grammar upon another argument, which was decidedly new in his day, contending that the "only just standard of any language" is the custom and modes of speaking it. He revolts against leaning too much on analogies in language. He says:

I think it is evident that all other grammarians have leaned too much to the analogies of that language (Latin) contrary to our modes of speaking. . . . It must be allowed that the custom of speaking is the original and only just standard of any language. We see, in all grammars, that this is sufficient to establish a rule, even contrary to the strongest analogies of the language with itself. Must not custom, therefore, be allowed to have some weight in favor of those forms of speech to which our best writers and speakers seem evidently prone?"

#### EXAMPLE AND ILLUSTRATION.

One final method, frequently urged by good teachers, was the setting of a good example and the careful explanation by the teacher of doubtful points. Colet urges that masters must set a good

<sup>63</sup> Ibid.

<sup>64</sup> Priestley, preface, VII-IX.

example.<sup>65</sup> Brinsley has the master read and explain difficult parts of the lesson; <sup>66</sup> has the pupils read parts after the master has read; <sup>67</sup> shows how the lecture method arose by lack of books; <sup>68</sup> and has them parse in imitation of the master.<sup>69</sup> Greenwood gives as the reason why youth have found grammar "irksome, obscure, and difficult," "partly through the Want of having every Thing explained and cleared up to their Understanding as they go along."<sup>70</sup> The author of the British Grammar explains what was doubtless the practice of the better masters about 1750; he indicates a distinct advance in method. In this respect the author is shown as an innovator.

The Method I take, and I find It so far effectual to the End proposed, is, having got what I judged to be the best Book of Letters, I make several young Gentlemen stand up and read a Letter gracefully; after which I read it to them myself, making observations on the Sentiment and the Style, and asking their Opinions with Respect to both.<sup>71</sup>

This admirable practice was found only in the better schoolrooms. We shall see the movement for "oral explanation" as a part of the educational revival led by Horace Mann.<sup>72</sup>

#### 4. PARSING.

We come now to the other two of the great triumvirate of methods carried over from the Latin to the English grammar—parsing and false syntax. Brinsley complains that "there is so much time spent in examining everything" (parsing); nevertheless, he insists that his pupils parse as they construe.

Ask the child what word he must begin to parse (Principal word).<sup>73</sup> . . . In the several forms and Authors to construe truly, and in propriety of words and sense, to parse of themselves and to give a right reason of every word why it must be so, and not otherwise. . . . Parse over every word; teach what part of speech, how to decline it. give a true reason for every word, why it must be so.<sup>74</sup>

Brinsley's elaborate method of procedure is as follows: The scholar is to read the sentence before he construes; mark all the points (punctuation) in it; mark words beginning with great letters; understand the matter; mark the vocative case; seek out the principal verb; give every clause his right verb; supply wanting words; give every word his "proper signification"; join the substantive and adjective; mark if the sentence have an interrogation point.<sup>75</sup>

<sup>65</sup> Lily, op. cit., 2.

<sup>66</sup> Brinsley, op. cit., 74.

<sup>67</sup> Ibid., 99.

<sup>68</sup> Ibid., 53.

<sup>69</sup> Ibid., 41.

<sup>70</sup> Ibid., 95. This is a careful examination of the nature of the sentence which does not come into the practice of American schools until well down into the nineteenth century. Green's Analysis of 1848 did much to throw the emphasis previously given to dry formalism in grammar to the analysis of sentences. See Chap. VII.

<sup>71</sup> Greenwood, preface, II.

<sup>72</sup> British, preface, XXVIII.

<sup>73</sup> See Chap. VI, p. 146.

<sup>74</sup> Brinsley, op. cit., 127.

<sup>75</sup> Ibid., 125.

An example of "praxis" or "grammatical resolution," the system of torture called parsing, which lasted well toward the end of the nineteenth century, may be taken from Lindley Murray's books:

The sentence:

And he came into all the country about Jordan preaching the baptism of repentance for the remission of sins. The Resolution: And, a Conjunction Copulative: he, a Pronoun, third Person Singular, Masculine Gender, Nominative Case, standing for John: came, as before: into, a Preposition: all, an Adjective: the Country, a Substantive: about, a Preposition; Jordan, a Proper Name; preaching, the Present Participle of the verb Active to preach joined like an adjective to the Pronoun he: the baptism, a Substantive in the Objective Case following the Active verb Preaching, and governed by it, etc.<sup>76</sup>

It requires but a glance at the contents of the grammars which began instruction of the subject in America to see how this formalism of parsing reigned supreme. The British Grammar believes in parsing every word;<sup>77</sup> Murray advertises a new system of parsing.<sup>78</sup> Gould Brown was perhaps the most ardent champion of parsing in America. He explains the philosophy of the exercise in this:

[It is] neither wholly extemporaneous, nor wholly by rote; it has more dignity than a school boy's conversation, and more ease than a formal recitation. The exercise in parsing commences immediately after the first lesson of etymology, and is carried on progressively until it embraces all the doctrines that are applicable to it. . . . It requires just enough of thought to keep the mind attentive to what the lips are uttering; while it advances by such easy graduations and constant repetitions as to leave the pupil utterly without excuse, if he does not know what to say.<sup>79</sup>

Brown further insists that in the entire range of school exercises, while there is none of greater importance than parsing, yet, perhaps, there is none which is, in general, more defectively conducted. Brown's grammars are the culmination of the series of parsing grammars; in the last chapter we have seen them in use quite extensively in the academies of New York as late as 1870.<sup>80</sup> Brown champions parsing on one ground which has an entirely modern ring. He wishes to have the child given something to do as well as something to learn.<sup>81</sup>

Elaborate formulas of procedure reduce all to a system, so that by rote correcting and parsing the whole process may be made easy. This makes the exercise free from all embarrassment, which is conducive to proficiency in language. Says this master of parsing:

The pupil who can not perform these exercises both accurately and fluently . . . has no right to expect from anybody a patient hearing. A slow and faltering rehearsal . . . is as foreign from parsing or correcting as it is from elegance of diction. Divide and conquer is the rule here, as in many cases. Begin with what is simple; practice it until it becomes familiar and then proceed. No child ever learned to speak by any other process. Hard things become easy by use, and skill is gained little by little.<sup>82</sup>

<sup>76</sup> Murray, 47.

<sup>77</sup> British, preface, VI.

<sup>78</sup> Murray, preface, 6.

<sup>79</sup> Brown, preface, VI.

<sup>80</sup> See Chap. IV.

<sup>81</sup> Brown, preface, V.

<sup>82</sup> Brown, Gram of Gram., preface, V.

This in a nutshell is the philosophy of grammar from Lily down to almost 1900. Grammar is the art of speaking and writing the English language; the child learns to speak by getting first the elements. A constant process of dividing wholes into parts, even to the letters as a starting point, is the natural and logical method for teachers who will start their pupils rightly. As written and spoken language is accomplished by the putting together of parts, so the taking of them apart is the initial step of the learning process. Parsing and correcting involve this extremely analytical philosophy. Therefore they are the best methods of learning. Moreover, parsing is looked upon as a—

critical exercise in the utterance as well as of evidence of previous study. . . . It is an exercise for all the powers of the mind, except the inventive faculty. Perception, judgment, reasoning, memory, and method are indispensable. . . . Nothing is to be guessed at, or devised, or uttered at random.<sup>83</sup>

Here we have the second step in the logical process of the parsing enthusiasts. The first rests on the natural analytical process as the basis of learning the parts of complicated wholes. The second is the logical result of the old faculty psychology. The powers of the mind, in order to be trained in the extremest sense of formal discipline, are exercised by the analytical procedure of tearing wholes into parts. This applies to all of the powers of the mind except invention, which is supposed to be a constructive, not an analytical, process. The reduction of parsing to strict models makes certain the elimination of invention on the part of the pupil. There is little doubt that the statement of Goold Brown, cited above, is the essence of the pedagogical thinking which regarded grammar as "the disciplinary study par excellence." It is a result in large part of the reign of faculty psychology and formal discipline.

## 5. FALSE SYNTAX.

The practices of the Latin and the rote periods added another bane to schoolboy life, namely, the correction of false syntax. This appears to have been generally introduced about the middle of the eighteenth century, the first to use it being Fisher and the author of the British Grammar. These writers are followed by all the others in our series, each seeming to be more convinced of the pedagogical value of the exercise than any of his predecessors. The author of the British Grammar asserts that his book is "differently planned,"<sup>84</sup> because it offers "promiscuous exercises in false syntax, both in verse and in prose."<sup>85</sup> He also urges the master to deceive his pupils by reading wrongly.<sup>86</sup> Fisher also urges the master to "read falsely,"<sup>87</sup>

<sup>83</sup> Ibid.

<sup>84</sup> British, preface, I.

<sup>85</sup> Ibid., III.

<sup>86</sup> Ibid., XV.

<sup>87</sup> Fisher, preface, XII.

to keep the pupils alert, and defends himself for putting his exercises in false syntax in a separate part of his book instead of scattering them "promiscuously" throughout the text.<sup>88</sup>

Lowth believes in teaching "what is right, by showing what is wrong." He thinks there is no English grammar which sufficiently performs this duty, though it may prove "the more useful and effectual method of instruction."<sup>89</sup> Two examples of Lowth's false syntax follow:

Rule: The article, a, can only be joined to Substantives in the Singular number. A good character should not be rested in as an end, but employed as a means of doing still further good. (Atterbury's Sermons.) Ought it not be a mean? I have read an author of this taste, that compares a ragged coin to a tattered colours. (Addison on Medals.)<sup>90</sup>

The foregoing amusing example of extreme emphasis put upon a perfectly trivial point is especially ludicrous, because Lowth is wrong. Both the sentences from Atterbury and Addison are correct; in the first, means is a singular noun; in the second "colours," meaning flag, is also singular.

The other example has to do with choose, chose, chosen:

Thus having chosed each other. . . . (Clarendon, Hist., Vol. III, p. 797, 8vo.) Improperly.<sup>91</sup>

Lowth complains that in 200 years English had made "no advances in grammatical accuracy." He quotes Swift "On the imperfect State of our Language"—that "in many cases it offended against every part of Grammar." He asserts that in his day "Grammar is very much neglected," and fills the bottom of nearly every page with footnotes of what he terms proof "that our best authors have committed gross mistakes for want of due knowledge of English Grammar." Lowth assures us that these examples "are such as occurred in reading, without any very curious or methodical examination." It is a curious speculation, then, as to why Lowth advocates so vigorously the teaching "of what is right by showing what is wrong." It may be that he was eager to make use of the copious notes which he had doubtless been accumulating in years of reading.<sup>92</sup> He is impartial in his selection of false grammar, citing Hobbs, the Bible, the Liturgy, Pope, Shakespeare, Prior, Hooker, Dryden, and Addison.<sup>93</sup>

<sup>88</sup> Ibid., X.

<sup>89</sup> Lowth, preface, X.

<sup>90</sup> Lowth, op. cit., 19.

<sup>91</sup> Ibid.

<sup>92</sup> Ibid., preface, I-X.

<sup>93</sup> "You was . . . is an enormous Solecism; and yet authors of the front rank have inadvertently fallen into it. 'Knowing that you was my old master's friend.' Addison, Spectator, No. 517. 'Would to God you was within her reach.' Lord Bolingbroke to Swift, letter 46, etc." In these footnotes Lowth's practice is somewhat of a deviation from correcting false syntax. Op. cit., 35.

Priestley approves of Lowth's methods, as follows:

An appendix would have been made of examples of bad English; for they are really useful; but they make so uncouth an appearance in print. And it can be no manner of trouble to any teacher to supply the worst of them, by a false reading of a good author, and requiring his pupils to point out, and rectify his mistakes. . . .<sup>10</sup> I think there will be an advantage in my having collected examples from modern writings, rather than those from Swift, Addison, and others, who wrote about half a century ago, in what is called the classical period of our tongue. By this means we see what is the real character and turn of the language at present; and by comparing it with the writings of preceding authors, we may better perceive which way it is tending, and what extreme we should most carefully guard against.<sup>11</sup>

William Ward also commends Lowth's method:

Very lately we have been favored with one (grammar) by the learned Dr. Lowth. . . . This Piece is excellent on account of his notes, in which are shewn the grammatic inaccuracies that have escaped the pens of our most distinguished Writers. This way of distinction, by showing what is wrong in English in order to teach us to avoid it, is necessary, because the pupils will themselves offend against every rule: there will be plenty of opportunity to shew them what is wrong.<sup>12</sup>

Again, we have the testimony of that high priest of parsing and false syntax, Gould Brown: "Scarcely less useful . . . is the practice of correcting false syntax orally, by regular and logical form of argument."<sup>13</sup> Murray also believes in the practice, as will be seen from the following quotation:

From the sentiment generally admitted, that a proper selection of faulty composition is more instructive to the young grammarian, than any rules or examples of propriety that can be given, the compiler has been induced to pay particular attention to this part of the subject; and though the instances of false grammar, under the rules of Syntax are numerous, it is hoped they will not be found too many, when their variety and usefulness are considered.<sup>14</sup>

The above examples are to be corrected orally.

Fisher thinks that he is the first to introduce English exercises in false syntax. He says that the practice was considered expedient in Latin and mentions two Latin texts of his day which have the device. He says: "I never observed this method recommended or prescribed by others."<sup>15</sup> It will be remembered that Fisher antedates Lowth, the British Grammar, and Priestley. The British Grammar improves on Fisher, the author of that book thinks, by scattering false syntax throughout the text and putting the errors in italics, not "to distract the learner too much."<sup>16</sup>

## 6. SUBORDINATE METHODS.

There can be no doubt that the grammars which determined the earliest instruction in the subject in America put a premium upon the

<sup>10</sup> Priestley, preface, XXII.

<sup>11</sup> Ibid., XI.

<sup>12</sup> Brown, preface, 4.

<sup>13</sup> Murray, preface 8.

<sup>14</sup> Ward, op. cit., preface, IX.

<sup>15</sup> Fisher, preface, XXI.

<sup>16</sup> British, preface, IV.

three major methods of teaching we have just been considering, viz: Memorization of rules, parsing, and correcting false syntax. All three, except possibly the last, are direct inheritances from the classrooms of Latin grammar, and if we can believe Fisher, as cited above, the latter was inherited also. We have now to consider certain minor methods. It must be borne in mind that grammar included in 1800 far more than it does to-day. It was instruction in the use of the mother tongue, embracing many of the purposes served to-day by composition, rhetoric, writing, reading, euphonics, declamation, and the rest. ✓

There is constant evidence as to the use of these additional functions of grammatical instruction. We may cite, for example, emphasis upon the parallel study of reading from authors in the mother tongue. This was to be the means of becoming familiar with good writers for the sake of observing good grammatical construction, as well as of getting lessons in morality, honesty, and goodness. Many of the grammars have appendices with fables, prayers, catechisms, and the like, which were prescribed as a regular part of the study called grammar. It is by no means improbable that in these parallel readings we have the origin of school practices which have to-day eventuated in the study of the English classics. Franklin, however, seems to have had in mind a larger purpose in his proposals, approaching in 1750 somewhat nearer our modern conception; that is, the English classics for their content as well as for literary excellence.<sup>2</sup>

Colet recommends the use of "prettie bookes" with "lessons of godlinesse and honestie." In the edition of 1627 he enjoins teachers to "be to them your own selves also speaking with them the pure Latin very present, and leave the rules."<sup>3</sup>

Dilworth feels that this reading will help make palatable what he calls "the pills of memorization."<sup>4</sup> The author of the *British Grammar* gives his pupils a taste of the poets;<sup>5</sup> Fisher has the master or one of the scholars read to pupils from the best authors.<sup>6</sup> Ward uses the *Spectator* as a suitable classic and selects from easy books "examples for resolving,"<sup>7</sup> while Priestley collects examples from

<sup>2</sup> See Chap. III, p. 44.

<sup>3</sup> "For reading of good books, diligent information of taught masters, studious advertence and taking heed of learners, hearing eloquent men speak, and finally busy imitation with tongue and pen, more availeth shortly to get the true eloquent speech, than all the traditions, rules and precepts of masters." Lily, *op. cit.*, 3. ✓

<sup>4</sup> "As Practice, in all Arts and Sciences, is the great Medium of Instruction between Master and Scholar. I would advise all Teachers, when they find their Learners relish the Rules of this Part (grammar) to enjoin them at the same time to read the best English Authors, as the *Spectator*, *Tatler*, *Guardian*, etc. . . . and banish from their eyes such Grubstreet Papers, idle Pamphlets, lewd Plays, filthy Songs, and unseemly Jests which . . . debauch the Principles." Dilworth, *preface*, VIII-IX.

<sup>5</sup> *British*, *preface*, XII.

<sup>6</sup> Fisher, *preface*, X.

<sup>7</sup> Ward, *preface*, X.

the best authors and indicates that he, too, believes in the device.<sup>8</sup> Later authors seem largely to have given up recommending the practice, perhaps because formal grammar is to an extent becoming more confined in its scope.

Four other methods, or classroom devices, appear quite frequently: Emulation, preferments, copying, and dictation.

Brinsley is the champion of the first of these. He desires all to have their adversaries and to be so matched and placed that all may "be done by strift."<sup>9</sup> Sewell has his pupils certify inaccuracies in each other's expressions, constantly correcting each other.<sup>10</sup> Brown passes the errors of one pupil on to the next.<sup>11</sup> Here we seem to find indication of the practice "going to the head of the line," so often described by our fathers. Fisher was an especially ardent advocate of emulation.<sup>12</sup>

Similar in purpose, if not quite identical in practice, is the elaborate system of preferments described by Brinsley. This has continued in all teaching up to the present day. Brinsley describes his plans for encouragement in this wise: Promotions to higher classes; giving higher places to those who do better; commending everything well done; giving rewards to victors in disputation and applause to the victors; and comparing exercises in writing books.<sup>13</sup> Copying might have been listed as a device for aiding memory. However, it seems to have been considered a means of stimulating interest, a sad commentary indeed upon the dry-as-dust processes which it could be thought to relieve. Typical advice is found in Fisher,<sup>14</sup> in Dilworth,<sup>15</sup> and in the British Grammar,<sup>16</sup> urging masters to have pupils copy exercises in both prose and verse for their "evening copy."

Dictation is closely akin to copying and is even more frequent in the recommendations of the grammarians. Brinsley strongly recom-

<sup>8</sup> Priestley, preface, XXIII.

<sup>9</sup> Brinsley, op. cit., 50.

<sup>10</sup> Sewell, preface, VII, VIII.

<sup>11</sup> "When a boy notes an impropriety in his schoolmate's Expression, he writes down the Expression just as it was uttered; then he adduces the Rule of Grammar from which the Expression deviates, and underneath he inserts the Expression corrected. For this Feat, he receives a Clap of Applause and takes his Place Superior to the Boy whose Expression he corrected."

The teacher should "carefully superintend . . . rehearsals; give the word to the next, when any one errs, and order the exercise in such a manner that either his own voice, or the example of the best scholars, may gradually correct the ill habits of the awkward, till all learn to recite with clearness, understanding well what they say, and make it intelligible to others."

<sup>12</sup> "After they are masters of letters, syllables, and words they will be able to remember Rules. . . . After reading they are to learn the stops and marks. . . . Employ time in writing Words down, whilst the Master, or one of the Scholars, reads a Paragraph from the Spectator . . . and let all that are appointed to write, copy from his Reading, then to create an Emulation, compare the Places and place the Scholars according to the Defect of their Performances." Preface, IX-X.

<sup>13</sup> Brinsley, op. cit., 280 et seq.

<sup>14</sup> Fisher, preface, X.

<sup>15</sup> Dilworth, preface, IX.

<sup>16</sup> British, preface, IV.



mended the practice.<sup>17</sup> Fisher also<sup>18</sup> would have pupils keep alphabetical lists in pocketbooks, the use of which he constantly urges. The British Grammar is likewise in favor of the device.<sup>19</sup> Sewell has pupils take dictation on their slates and then the teacher corrects it.<sup>20</sup> Dilworth also recommends the exercise.<sup>21</sup>

There remains to be noted the use of copy books, writing exercises, and oral work. Brinsley recommends "note books of daily use with inke," and requires each pupil to possess "a little paper booke to note all new and hard words in."<sup>22</sup> Fisher gives extended directions for the use of copy books.<sup>23</sup>

The British Grammar, elaborating the discussion of dictation, gives it the nature of a writing exercise. When a master dictates he may mix the rules, making the exercise as promiscuous as he chooses. Let a tyro "first copy the several Exercises, and then write them a second time from Dictation," then correct it and copy it again. The author advances this as a reason for making his book so short. He also commends the writing of an anonymous letter with the purpose that "One Exercise should be daily to write a Page of English, and after that to examine every word by the Grammar Rules; and in every Sentence they have composed, to oblige them to give an Account of the English Syntax and Construction."<sup>24</sup>

Sewell requires pupils to write on their slates, and has in the appendix a chapter for practice in letter writing.<sup>25</sup> Ward has the study of grammar accompanied by the composition of short letters.<sup>26</sup> Brown gives four chapters of exercises adapted to the four parts of the subject, which are to be written out by the learner. "The greatest peculiarity of the method is that it requires the pupil to speak or write a great deal, and the teacher very little."<sup>27</sup>

Fisher's book and the British Grammar are particularly emphatic in recommending oral work, the former making pupils pronounce

<sup>17</sup> Brinsley, op. cit., 46 and 124.

<sup>18</sup> Fisher, preface, VI.

<sup>19</sup> British, preface, XIII.

<sup>20</sup> Sewell, preface, VII.

<sup>21</sup> Dilworth, preface, VI.

<sup>22</sup> Brinsley, op. cit., 46 and 124.

<sup>23</sup> "Let the Master write down all their mis-spelt words right in their Writing-Books, to be got by Heart before they leave them and withal, make each Scholar write his own into an Alphabetical Pocket-book kept for that Purpose." He also recommends that the master write misspelled words into the pupils' writing books. Perhaps we have in these books the germ of composition work which first came about 1750. Fisher, preface, XI.

<sup>24</sup> British, IV, VI, XIX

<sup>25</sup> "Now and then as a General Exercise, I make my pupils write down on their Slates a select sentence, as I dictate to them; each one keeps his Performance close to himself. On Examination those whose Performances appear correct, are ranked in a Superior Place, and to prove that they have written correctly, by Dint of Judgment, and not as the Effect of Chance, I make them rectify the Error of Inferior Boys, by quoting the Rule of Grammar, from which each Error is a Deviation." Sewell, preface, VII. The appendix for letter writing is on page 163 of Sewell's Grammar.

<sup>26</sup> Ward, preface, X.

<sup>27</sup> Brown, preface, VI.

orally in prosody,<sup>28</sup> the latter requiring them to speak every day their unwritten thoughts.<sup>29</sup>

## 7. METHODS USED BY HUGHES AND BYERLEY.

So far the endeavor has been to show how the methods of teaching grammar in the Latin and rote periods were, with but slight variation, the methods used in instruction in Latin grammar. This chapter may fittingly close with a description of methods used in two prominent English grammar schools in New York in 1769 and 1773, respectively. Fortunately, Hugh Hughes and Thomas Byerley have left careful explanation of their methods. The description of these masters is also strong evidence that English grammar was coming to occupy in a few American schools a position very closely resembling that held by Latin grammar in classical schools, indeed, that identical methods were employed in the teaching of both.

### HUGHES.

In 1771 Hughes modified his program, at least he so claims, to lay greater stress upon English. His advertisement of that year reads: "Orthoepy, or Just Pronunciation, which the Pupil is taught, not by Precept alone; but by Occular Example . . . with proper Stops. Emphasis, Cadence, Quantity, and a Delivery, varied and governed by sense."<sup>30</sup>

In 1771 Hughes had changed his program into that of a thorough-going English grammar school. On December 30 he announces: "The Subscriber proposes, if encouraged, to teach the English Language Grammatically." It is to be noted here that the method proposed is probably unfamiliar, or at least not common, in New York and that "if encouraged" indicates the dependence of private-school men upon the desires of patrons, of which concerning his new proposal he is somewhat in doubt. Hughes thus describes his methods:

When the pupil can read fluently and write a Legible Hand he shall be taught the English Accidence,<sup>31</sup> or the Properties of the Parts of Speech, as divided and explained by the latest and most eminent English Grammarians; that is Dr. Lowth, Dr. Priestley, and others.

After which he will be taught to parse disjunctively, then modally, and instructed in the Rules of English Syntax: and, when he is sufficiently skilled in them, to account for the Construction of Sentences in General, he will receive Lessons of False Spelling and Irregular Concord, etc., taken from some classic Authors, but rendered ungrammatical for the Purpose of trying his Judgment. When he has reduced these as near the Original as his Knowledge of Grammar will permit, he will be shown all such Irregularities as may have escaped his Notice, either in the Orthographical or Syntactical Part.

<sup>28</sup> Fisher, preface, XI.

<sup>29</sup> British, preface, XXVIII.

<sup>30</sup> N. Y. G. and W. P. R., Dec. 30, 1771.

<sup>31</sup> It is to be noted that the study of English grammar begins exactly where that of Latin grammar began.

These Lessons will also be selected from different Authors in various Subjects; and frequently, from the Works of those who are the most Celebrated, for the Elegance of their Epistolary Writings; as this Kind of Composition is acknowledged to be as difficult as any, and of greater Utility. The erroneous Part in every Lesson will likewise be modified. At one time it will consist of false Spelling alone; . . . at another of false Concord; . . . the next perhaps will consist of both; . . . the fourth may not be composed of either of them, but may contain some Inaccuracies or Vulgarisms, etc.; the fifth may retain all the foregoing Inproprieties, and the last, none of them, of which the pupil need not be appraised, for Reasons, that are too evident to require a Recital. To the preceding exercises will succeed others on the Nature and Use of Transposition; . . . the Ellipses of all the Parts of Speech, as used by the best Writers, together with the use of Synonymous Terms. . . .

A General Knowledge of all which, joined to Practice, will enable Youth to avoid the many orthographical Errors, Barbarisms, Inelegant Repetitions, and manifest Solecisms, which they are otherwise liable to run into, and in Time, which render them Masters of an easy, Elegant Style, by which they will become capable of conveying their Sentiments with Clearness and Precision, in a concise and agreeable Manner, as well with Reputation to themselves as Delight to their Friends.

Lastly, tho' the Pointing of a Discourse requires Judgment and a more intimate Acquaintance with the Syntactical Order of Words and Sentences, than the Generality of Youth can be possessed of, to which may be added the unsettled State that Punctuation itself is really in; so that very few precise Rules can be given, without numerous Exceptions, which would rather embarrass the Pupils by continually searching of their Dictionaries, in quest of Primitives and their Derivatives, as well as the constituent Parts of Compound Terms; besides learning the Dependence that their Native Language has on itself; will also treasure up in their Memories a vast Stock of Words, from the purest Writers; and what is of infinitely more Value, their just Definitions; as every one of this Class will have Johnson's Dictionary in Octavo.\*

#### BYERLEY.

Byerley is the author of the second grammar written by an American and published in this country, "A Plain and Easy Introduction to English Grammar," 1773. In the same year we find him advertising an English grammar school in New York City, giving a detailed record of the methods of teaching used in his various classes.

Byerley, like Franklin and other American champions of the mother tongue, had been reading John Locke.<sup>35</sup> In the advertisement of his school, he sets forth the necessity of giving up the study of Latin for the purpose of learning English grammar, quoting Locke

\* Advertisement in N. Y. G. and W. P. B., Dec. 30, 1771.

<sup>35</sup> Byerley, after quoting Locke and Lowth, continues: "Heretofore it was thought a competent knowledge of the English could not be acquired without some previous acquaintance with the Latin Tongue: which therefore became the only Vehicle of grammatical Instruction. This error arose from a too partial Fondness for that Language, in which formerly the Service of the Church, the Translation of the Bible, and most other Books were printed. . . . Men, however, too often sacrifice their Understanding\* at the shrine of Ancient Custom. Thus the Practice of sending Youths to learn English at a Latin

at length on the unwisdom of compelling a lad to learn "the Roman Language" when he is at the same time designed for a "trade."<sup>36</sup> There can be little doubt that the seeming practicability of English grammar and of the so-called English education in general—a contention first advanced by Locke—was the most powerful argument for the vernacular.

After thus setting forth his reasons Byerley sketches his plan for "An English Grammar School which will be opened the first of next month."<sup>37</sup> This title, like Hughes's, which was called "An English Grammar and General School, indicates that there were attempts to establish English schools on the same order as the secondary grammar schools heretofore known in the colonies.

In the lowest Class will be arranged the Children who have been but imperfectly taught to read; with whom the Utmost Care shall be taken to correct ill Habits in Reading; and to form a just Pronunciation.

In the next Class the Scholar shall be initiated in the grammatical Institutes; and these strongly fixed on the Mind by frequent Parsing of the most approved Lessons.

The third will introduce the scholar to an Acquaintance with the Syntax and Ellipsis; each of which shall be inculcated in a Course of reading such books as may engage the young Attention, and have a moral Tendency; as *Æsop's Fables*, *The Moral Miscellany*, *The British Plutarch*, *Gay's Fables*, *Beauties of History*, or *Pictures of Virtue and Vice*.

In this Class the Scholar will be frequently exercised in the Declension of Irregular and defective Verbs, and the Exercises of Parsing will be continued.

The fourth Class will be formed out of those Scholars who being most proficient in their grammatical Exercises are ready to be instructed in a proper and elegant Method of reading Prose.

The books used in this Course, will be chiefly History of the World, History of English, Introduction to Polite Learning, Seneca's Morals, Ancient History, History of America, Derbam's Physics, and Astro-Theology, Economy of Human Life.

In the fifth Class the scholar will be initiated in the Proprieties and Beauties of reading Poetry, exemplified in the Works of Thomson, Gray, Pope, and Milton.

The Scholars of the fourth and fifth Classes will be occasionally instructed in the Art of familiar Letter writing.

#### SUMMARY OF METHODS IN THE LATIN AND ROTE PERIODS.

What then may be concluded concerning the methods of the years 1750 to 1823 in America?

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School continued, without any inquiries about the Propriety of it, till Mr. Locke ventured to censure the conduct of a Father who should waste his own Money and his Son's Time in Setting him to learn the Roman Language." . . .

Byerley was a disciple of Locke in matters of discipline also. At the end of his advertisement he gives "Rules," "on the Model of Mr. Locke, a New Mode of Reprehension for Irregularities and a loitering Study, will be adopted. The several Methods at present taken in most Schools . . . are oftener attended with bad than with good Consequences. It shall be my care to reason or shame them out of their Faults by affectionate Arguments with them; or in the Extremity, a public Disgrace among their Fellows."

<sup>36</sup> The title Hughes's English Grammar and General School appears in 1773 announcement. N. Y. G. and W. M., Nov. 8.

<sup>37</sup> Byerley advertisement in N. Y. G. and W. M., Aug. 23, 1773.

1. The textbooks in most general use were modeled strictly after the Latin, and their authors advised methods of instruction which had been used in teaching Latin grammar for 300 years.

2. The common conception of grammar—as the art of writing and speaking a language with correctness and propriety—was one which confused the nature of grammar with the laudable purpose of teaching it and obtained, with few exceptions, throughout the two periods.

3. Instruction proceeded without exception from the wrong unit—the word. This was the natural result of the seemingly logical process of beginning with the simplest elements and proceeding to the complex. In reading and in grammar, because of this procedure, the A-B-C method was destined to remain fixed until the revival led by Horace Mann. All the grammars began with the parts of speech.

4. There was but little connection between the parrotlike repetition of rules and any real understanding of them.<sup>38</sup>

5. Relatively little effort in writing or speaking was made to apply the rules of grammar. William B. Fowle, the editor of *The Common School Journal*, writing of his own education about 1800, said:

We were educated at one of the best schools . . . but, although we studied English grammar seven years and received a silver medal for proficiency, we never wrote a sentence of English at school, and never did anything that had to do with writing or conversation.<sup>39</sup>

The common procedure was in theory from rules to practice; but it was practice involved in the application of formidable exercises of syntax, etymology, and parsing and endless exercises in correcting false syntax. It is true that in dictation, writing exercises, and speaking we have seen, in embryonic form, the beginnings of our modern composition and literature; but these were strictly subordinated to the all-powerful trilogy of methods—memorization, parsing, and false syntax.

In short, from the viewpoint of the best modern practice, before 1823, English grammar was badly taught in every respect. The nature of the textbooks themselves is enough to warrant that conclusion; but when the evidence is added of the wretched incompetence of teachers<sup>40</sup> and the corroborating testimony of every man who was a student of grammar during that period assurance is rendered doubly sure. In almost the same terms Brinsley uses for his own school in 1620 he might have described the practices of Hughes's and Byerley's schools a century and a half later.

<sup>38</sup> An observer, speaking of 1820, says: "Grammar has been extensively introduced. . . . Children are required to commit the grammar to memory. This was the study of grammar. . . . It may be said . . . that scarcely anyone understood anything he passed over."

<sup>39</sup> Editorial, *C. S. J.* (1849), 258. Fowle was the editor of two rather obscure grammars in the period which turned the study toward the science of sentences and the practice of writing.

<sup>40</sup> See Chap. IV, pp. 92 et seq.

## Chapter VI.

### GRADUAL CHANGES IN METHOD BEFORE 1850.

In the preceding chapter we have seen the methods used in teaching Latin grammar transferred with slavish imitation to English. In brief, grammar was looked upon as the art of speaking and writing correctly. This art was to be acquired by learning page after page of rules by rote,<sup>41</sup> of which no application whatever was made by the pupils.<sup>42</sup> Memorizing came to be supplemented by parsing according to strict Latin methods<sup>43</sup> and by correcting endless examples of false syntax.<sup>44</sup> Moreover, the question-and-answer method, putting a premium on verbatim recitation of memorized parts, prevalent before 1800, had not entirely disappeared in 1830.<sup>45</sup> Grammar was begun by very young children and was accompanied by no oral discussion and by no composition. Teachers were very deficient.<sup>46</sup> The result of these methods was little more than a mystification of the pupils, with no appreciable improvement in grammatical accuracy.<sup>47</sup> In short, the early instruction in grammar in America up to the end of the first quarter of the nineteenth century proceeded on the wrong basis—that of inflections; it began with the wrong unit—the word, and it followed entirely erroneous methods of study in proceeding from theory and rules to practice instead of reversing the process.<sup>48</sup>

<sup>41</sup> J. T. Buckingham, *Am. J. of Ed.*, 13, 132; Noah Webster, *ibid.*, 26, 196; W. K. Oliver, *ibid.*, 218.

<sup>42</sup> Wallis, *Com. Sch. J.* (1850), 5.

<sup>43</sup> As indicating the Latin extreme, Murray's Grammar makes possible 60 forms in the pluperfect tense of the subjunctive mood.

<sup>44</sup> This seems to have been introduced by Lowth's Grammar in 1758.

<sup>45</sup> Wallis, *op. cit.*, 85; Wickersham, *Hist. of Ed. in Pa.*, 206; *Am. An. of Ed. and Ins.* (1832), 268.

<sup>46</sup> See Chap. IV, p. 92.

<sup>47</sup> Rept. Committee Common Schools, Conn., *Am. An. of Ed. and Ins.* (1832), 247.

Horace Mann said in 1827: "It is not a perfect knowledge of a treatise on grammar or a surprising fluency in parsing that will serve to produce . . . correctness in expression." *Am. An. of Ed.* (1827), 681-2.

<sup>48</sup> W. C. Woodbridge, a prominent schoolman of Boston, says: "Nothing is more common than for children to recite it (the grammar), in course, *two* or *three* times. In many of our schools, a portion of the day, through the greater part of one winter term of three or four months, is devoted to committing to memory the rules and definitions of etymology." He makes the following amusing calculation: "The average time spent in committing grammar, *as it is called*, to memory, is at least one month to each pupil concerned; and this time is entirely lost. New England contains 1,954,562 inhabitants, about one-fourth of whom are between 4 and 16 years of age. One scholar in ten . . . commences the study of grammar every year. The amount of time lost annually is equivalent to 4,072 years." Then, estimating the cost of schooling as \$1.50 a week, he adds: "The value of the time would thus be \$317,616. . . . Let this waste be continued every year for 30 years, and the amount is nearly ten millions of dollars." *Am. J. and An. of Ed. and Ins.* (1831), 170-1.

The ensuing period between 1823 and 1847, called above the parsing period, was a time of conflict between the traditional ideals and methods just mentioned and innovations fostered largely by the trend toward inductive study which characterized some school practices of that day. During this period four grammatical textbooks dominated the field. In 1823 Samuel Kirkham published in New York his "New and Systematic Order of Parsing" and in 1825 his "English Grammar in Familiar Lectures." In the same year and State Gould Brown published his "Grammatical Institutes." Peter Bullion's Grammar of 1834 was the third. Roswell Smith's two books—his grammars on the inductive and on the productive systems, respectively—had appeared in 1829 and 1831. Smith was a Massachusetts author; Bullion lived in New York. These four texts we have seen were fairly successful in outdistancing all rivals by 1830, almost entirely displacing Murray and Webster<sup>49</sup> with their imitators.

At the end of the period upon which we are entering William H. Wells, with his "School Grammar," of 1846, and Samuel S. Greene, with "The Analysis of Sentences," of 1847, appeared upon the scene. — These men produced the first of those texts which, after the middle of the century, were to bring about still another revolution in principles and school practice. They were the culmination of the influences which we shall see at work during the 25 years preceding them, ushering in permanently the conception of grammar as a science of sentences.<sup>50</sup>

The present chapter endeavors to trace the most important influences which produced the breaking away from the conception of grammar as an art and prepared the way for the conception of it as a science, a state finally attained by 1850. It will treat also the accompanying changes in methods of teaching before that date.<sup>51</sup> The second quarter of the last century was by far the most interesting and important period in grammatical instruction, surpassed in inter-

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Woodbridge is writing of the year 1830. In a Virginia elementary school of 1847 the rule in grammar was: "Commit the big print the first time; on the second review the big and little print, *verbatim*. So I went through Smith's Grammar on the Productive System. (What it produced in me Heaven only knows.) Almost all lesson-getting was by heart." E. S. Joynes, quoted, Heathwale, Hist. of Ed. in Va., 111.

<sup>49</sup> See Chap. IV, p. 88. Smith's Grammars were used more than all others combined in Massachusetts during these decades. Bullion, Brown, Smith, and Kirkham divided the grammatical field of New York about evenly among them.

<sup>50</sup> Wells defines grammar as "the science which treats of the principles of grammar. English grammar teaches [not is] the art of speaking and writing the English Language correctly." Sch. Gram., 25. Greene says: "English grammar teaches the principles of the English Language." Analysis, 203. By 1850 the conception of grammar as a science was firmly fixed in school practice. Even Gould Brown, who in 1823 had defined "English Grammar is the Art of Speaking and writing the English language correctly" (Institutes, 15), modified his definition to conform to the newer conception in 1851. Gram. of Gram., 45.

<sup>51</sup> The advance in methods after 1850, beginning with Wells and Greene, carried on later by Swinton, Swett, and others, is reserved for another study.

est only by the movement on foot at the present time, by which grammar is being relegated to its proper place as a purely incidental study.

### 1. THE NATURE OF THE DOMINATING TEXTBOOKS, 1823-50.

Samuel Kirkham's two books, particularly his "Grammar on the Productive System," reached enormous popularity, especially in New York and adjoining States.<sup>52</sup> In several important respects Kirkham's textbooks differ from Murray's, which they did so much to displace. They made a decided advance in methods of teaching. First, Kirkham illustrates in a series of familiar talks the various rules and definitions in an endeavor to bring them within the comprehension of the learners;<sup>53</sup> second, he introduces an imposing new system of parsing.<sup>54</sup> The chief innovation in his parsing, as differing from Murray and Webster, is that Kirkham introduces it very early in his study, immediately after his treatment of nouns and verbs, while the older grammarians postpone the subject until the pupil had mastered 160 pages (in Murray) of etymology and syntax.<sup>55</sup> Kirkham's third innovation is his use of a series of devices for recognizing the various parts of speech and their functions in a sentence.<sup>56</sup>

These three innovations are designed to accomplish two purposes which seem to have been largely unrecognized by the grammars of the preceding periods, namely, the intelligent understanding by the pupil of the parts he was learning and immediate self-activity on the pupil's part in practicing the new principle just as soon as he has acquired it. Remembering now that "stick close to the book" was the order of the day, it is easy to infer what the influence of Kirkham's methods must have been in school practice.

<sup>52</sup> See Chap. IV, p. 84.

By 1835 the second book is said to have reached its one hundred and seventh edition in New York. Barnard, *Am. J. of Ed.*, 14, 763.

The writer is using a book called "English Grammar by Lectures." Joseph Hull (first edition, Boston, 1828), seventh edition, Mayfield, Ky., 1833. In a note the author says that Kirkham stole his plan of procedure from him. Hull uses the same order of parsing as Kirkham, namely, by transposition. He says: "This order and these rules have been copied by some writers on English Grammar and presented as original. But a reference to the date of the author's copyright . . . in the forty-sixth year of the Independence of the United States (1821) will prove it to be a plagiarism." Preface, XIV. We do not pretend to pass on the merits of the claim. There is evident truth that either Hull copied Kirkham, or vice versa; the grammatical treatment of both is on an entirely different plane from that of earlier writers we have seen. However, although the case looks bad for Kirkham, it was certainly he, not Hull, who was influential in spreading the new movement.

<sup>53</sup> For example: The nominative case is the actor, or subject of the verb; as, John writes. In this example, which is the verb? You know it is the word *writes*, because this word signifies to do; that is, it expresses action; therefore according to the definition, it is an active verb. And you know, too, that the noun *John* is the actor, therefore John is in the nominative case to the verb writes. *Eng. Gram. in Fam. Lect.*, 43.

<sup>54</sup> "The Order Of Parsing a Relative Pronoun is—a pronoun, and why?—relative, and why?—gender, and why?—Rule.—Case, and why?—Rule.—Decline it." *Ibid.*, 113.

<sup>55</sup> It is only fair to say that editions of Murray's Abridgment after 1820 also place parsing immediately after each exercise but in a much more rudimentary way.

<sup>56</sup> Any word that will take the sense of "the" before it is a noun. Any word which will make sense when preceded by "to" is a verb, etc. *Ibid.*, 31, 44.



Kirkham remarks concerning his innovations: "All (earlier writers) overlooked what the author considers a very important object, namely, *a systematick order of parsing*; and nearly all have neglected to *develop* and *explain* the principles in such a manner as to enable the learner, without great difficulty, to comprehend their nature and use."<sup>57</sup> He disclaims originality in subject matter, admitting frankly that he copied Murray, but claims great credit for changes in presentation and in method.<sup>58</sup> We may conclude that Kirkham's main attack was on purposeless rote memorization, aiming, as he did, to make the pupils understand what they learned, and that while he retained parsing and the correcting of false syntax he made definite attempts to compel practice to accompany learning step by step.

Smith's Inductive and Productive Grammars, 1829 and 1831, were produced frankly on the leading principles of Pestalozzi. This principle Smith states as follows:

The child should be regarded not as the mere recipient of the ideas of others, but as an agent capable of collecting, and originating, and producing most of the ideas which are necessary for its education, when presented with the objects of facts from which they may be derived. . . . Such is the productive system, by which the powers of the pupil are called into complete exercise by requiring him to attempt a task unaided, and then assisting him in his own errors. . . . They distinguish carefully between knowledge and the means of perceiving it. . . ."<sup>59</sup>

The pretentious idea of the productive system, when worked out in practice, is not at all impressive. Throughout the book the productive method amounts to putting in the text explanations which the teacher might have made orally.<sup>60</sup> The productive approach to rule

<sup>57</sup> Ibid., 9.

<sup>58</sup> "The systematick order laid down in this work, if pursued by the pupil, compels him to apply every definition and every rule that appertains to every word he parses without having a question put to him by the teacher. . . . The author is anxious to have the absurd practice . . . of causing learners to commit and recite definitions and rules without any simultaneous application of them to practical examples immediately abolished." Ibid., 11.

<sup>59</sup> Preface, stereotype ed., Philadelphia, 1838, 5, 6.

Smith's Productive is really three grammars in one. Part I, covering 40 pages, contains the parts of speech and treats 11 rules of syntax. Part II, intended for the next higher class, covers (pp. 41-96) exactly the same 11 rules, going into much more detail, with more elaborate parsing, and adding exercises in syntax, together with sentences to be corrected. It adds more rules, completing 22 rules of syntax. Part III is entitled "Syntax" and is really a rearrangement of Murray's large grammar. Murray's 22 rules are given in order, with his treatment of each. Above each of Murray's rules Smith places the number of his rule which corresponds, adding nine to the list. This part might have been used by a pupil in his third year of grammar. The fact that it included three grammars in one may have accounted for the popularity of the book in part; under one cover is material for three consecutive years of grammatical study, the second and the third each being an elaboration of the preceding.

<sup>60</sup> I. Of the Noun.

Q. What is your name?

Q. What is the name of the town in which you live?

Q. What does the word noun mean?

Ans. The word noun means name.

Q. What then may your name be called?

9—two negatives in the same sentence are equivalent to an affirmative—runs in this wise:

Negative means denying; and affirming, asserting or declaring positively. A sentence in which something is denied is a negative one, and a sentence in which something is affirmed . . . is an affirmative one. . . . The phrase, "I have nothing," has one negative, and means, "I have not anything." The phrase "I have not nothing" . . . must mean . . . "I have something."

Then follows the rule. Smith's idea is good, but when the objects dealt with are words which are mere symbols of meanings, when the objects dealt with are grammatical relationships and merely logical concepts, the method for a textbook becomes extremely laborious. It is formal, stiff, and heavy. However, his efforts at explanation and self-activity on the part of the pupil were pioneer attempts in a difficult field. At the close of this period much of the laborious explanation placed in the books of Kirkham and Smith is left to the teacher in the form of "Oral Instruction."<sup>61</sup>

In quite another direction lies the real merit of Smith's innovations. He has one set of exercises running throughout his text, which constitutes a decided step in advance. This is a series entitled "Sentences to be written." For example, "Will you write one sentence describing the business of an instructor?"<sup>62</sup> One, the business of a doctor? One, the business of a lawyer? One of a surgeon. . . . One, of the directors of a bank."<sup>63</sup> This pioneering in the field of sentence building renders him worthy of a place of high honor. Of course composition was not unknown, but the writer has seen no serious attempts earlier than Smith to use it in close association with grammatical instruction. This sentence building is one of the most promising innovations in any textbook up to 1831.

Smith adds one other feature worthy of mention. At the foot of each page he places a set of questions covering the principles developed on the page. Presumably many a class recitation consisted in the teacher's reading these questions and receiving corresponding answers by the pupils. This in reality was a backward step. The very necessity of framing a suitable question compels the teacher to think, provided of course the recitation consists of anything more than memorizing work. Smith scatters parsing and false syntax throughout his books, as do all the important texts of the period with which the writer is familiar. All follow Kirkham's example.

Bullion's Grammar of 1843 contains nothing new; his one effort at advance in method seems to have been to make parsing shorter and

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Ans. A noun.

Q. What may all names be called?

Ans. Nouns.

Q. Boston is the name of a place; is Boston a noun, and if so, why?

Ans. Boston is a noun because it is a name, etc. Ibid., 7.

<sup>61</sup> See p. 146.

<sup>62</sup> Ibid., 105.

<sup>63</sup> His spelling is incorrect.

simpler. His grammar parses the sentence "I lean upon the Lord," as follows: "I, the first personal pronoun, masculine or feminine, singular, the nominative; lean, a verb, neuter, first person singular, present, indicative; upon, a preposition; the, an article; Lord, a noun, masculine, singular, the objective, governed by upon."<sup>44</sup> In parsing, the pupil is urged to state everything belonging to the etymology of each word "*in as few words as possible*," always "*in the same order*" and "*in the same language*."

Bullion's idea of simplifying any part of the process in grammar was certain to arouse the bitter opposition of Goold Brown, who is at once the most scholarly, the most interesting, and the most exasperating grammarian encountered in this study. He is exasperating because of his sarcastic condemnation of the grammatical work of every prominent writer with whose books his own came in competition. Upon this simplifying plan of Bullion, Brown heaps the bitterest scorn, pointing out that Bullion omits (1) definitions of terms applied; (2) distinction of nouns as common and proper; (3) the person of nouns; (4) the words, number, gender, case; (5) the division of adjectives into classes; (6) the classification of words as regular and irregular, redundant or defective; (7) the division of verbs as active, passive neuter; (8) the words, mode, and tense; (9) the distinction of adverbs, as to time, place, degree, and manner; (10) the distinctions of conjunctions as copulative or disjunctive; and (11) the distinction of interjections as expressions of varying emotions.

The omission of these 11 points in parsing was highly irritating to Brown, who still remained in 1851<sup>45</sup> a worshiper of formalism. To Roswell C. Smith and Pestalozzianism in general Brown pays his respects in no gentle terms. Of "The Grammar on the Productive System" he affirms:

The book is as destitute of taste, as of method: of authority, as of originality. It commences with the inductive process, and after forty pages . . . becomes a "productive system," by means of a misnamed "Recapitulation" which jumbles together the etymology and the syntax of the language through seventy-six pages more. It is then made still more "productive" by the appropriation of a like space to a reprint of Murray's Syntax and Exercises, under the inappropriate title, "general observations." What there is in Germany or Switzerland that bears *any resemblance* to this misnamed system of English grammar, remains to be seen. . . . The infidel Neef, whose new method of education has been tried in this country, and with its promulgator forgot, was an accredited disciple of this boasted "productive school," a zealous coadjutor with Pestalozzi himself, from whose halls he emanated . . . to teach the nature of things sensible, and a contempt for all the wisdom of books. And what similarity is there between his method of teaching and that of Roswell C. Smith, except their pretense to a common parentage, and that both are worthless?<sup>46</sup>

<sup>44</sup> Prin. of Eng. Gram., 74.

<sup>45</sup> Gram. of Gram., 92-3.

<sup>46</sup> The date of his Grammar of Grammars.

'Thus does Brown discredit Pestalozzianism, with its oral and objective teaching, and vigorously assail those who began to doubt "the wisdom of books." Thus does he resent any effort to simplify or render more expeditious the mastery of grammar, whose principles he regarded with almost worshipful reverence. His own influence on school practices was decidedly conservative; he is the last of the old guard, the champion of traditional methods, believing that a knowledge of "the book itself will make anyone a grammarian." He declares:

The only successful method of teaching grammar is to cause the principal definitions and rules to be committed thoroughly to memory, that they may ever afterward be readily applied. Oral instruction may smooth the way and facilitate the labor of the learner; but the notion of communicating a competent knowledge of grammar without imposing this task is disproved by universal experience. . . . It is the plain didactic method of definition and example, rule, and praxis; which no man who means to teach grammar well will ever desert. . . . The book itself will make anyone a grammarian *who will take the trouble to observe and practice what it teaches.*"

Thus, in an almost ludicrous way the champion of what he calls the "ancient positive method, which aims directly at the inculcation of principles" <sup>66</sup> is blind to that fatal error of the traditionalists who thought that the book itself would make anyone a grammarian. They were right, if the assumption upon which the statement was made were true. The error of the traditionalists lies in this assumption. The connection between knowledge of the book, especially mere verbal knowledge and skill in practice, is remote. That this connection was not made in early American schools, was never made in any schools, and is not generally made to-day is the supreme criticism of the methods and practice of teaching grammar throughout its entire course in America.

No better summary of the tide of protest that was swelling up between 1825 and 1850 against this older conception can be desired than the following statement of Brown himself, made at the close of the period. His monumental "Grammar of Grammars," 1851, was written frankly to stem innovations in teaching the subject. Examining the common argument that the memorizing of definitions and rules, the knowledge of the arrangements and divisions of a highly Latinized grammar, has very little function in acquiring skill in the art of language, Brown says:

It [this argument] has led some men . . . to doubt the expediency of the whole method, under any circumstances, and either to discountenance the whole matter, or to invent other schemes by which they hoped to be more successful. The utter futility of the old accidence has been inferred from it and urged . . . with all the plausibility of a fair and legitimate deduction. The hardships of children, compelled to learn what they did not understand, have been bewailed

<sup>66</sup> Institutes, preface, VI.

<sup>66</sup> Gram. of Gram., 86.

In prefaces and reviews, and prejudices . . . have been excited against that method of teaching grammar, which after all, will be found . . . the easiest, the shortest, and the best. I mean, especially, the ancient positive method, which aims directly at the inculcation of principles."

Of the four leading grammarians of the period, then, we may say that Brown was distinctly a traditionalist. His contributions lay in a more accurate presentation of the subject matter of grammar in general. He was the last of the grammarians who would foist upon a concordless tongue all the intricacies of inflected languages and insist that a mere knowledge of abstract grammatical principles is effective in making good writers and speakers. He looked upon grammar as formal discipline par excellence. Bullion's contributions to new methods were very meager. Kirkham and Smith, forerunners of radical changes, attempted to employ principles of inductive teaching.

From almost the beginning of grammatical instruction in America there had been sporadic attempts to make grammar easy for young pupils. No fewer than 13 texts which were published before 1820 appear under the titles "Rudiments," "Grammar Made Easy," "Elements," "English Grammar Abridged," "Epitome of English Grammar," and the like. But this endeavor to make grammar easy is to be sharply distinguished from the attempts of grammarians whom Brown refers to as simplifying grammarians—men who, after 1823, endeavored to present by means of easily understood devices theoretical intricacies as found in Murray and Webster.

Even before the period under consideration Greenleaf, in 1819, published "Grammar Simplified, or Oracular Analysis of the English Language." Other titles indicative of this second line of endeavor are: Anonymous, 1820, "The Decoy, An English Grammar"; McCrady, 1820, "An English Grammar in Verse"; Ingersoll, 1821, "Conversations in English Grammar"; Hurd, 1827, "Grammatical Chart, or Private Instructor"; Patterson, 182-, "Grammar without a Master"; anonymous, 1830, "Pestalozzian Grammar"; anonymous, 1830, "English Grammar with Cuts"; anonymous, 1832, "Interrogative Grammar," and the like. In short, after 1820 there was manifest a distinct tendency, both among leading grammarians and humbler workers, to modify what had hitherto been an occult and laborious subject, to the end that it might be understood as well as learned verbatim.<sup>70</sup>

<sup>70</sup> Ibid., 86.

"Goold Brown speaks characteristically of this entire tendency. "The vain pretensions of several modern simplifiers, contrivers of machines, charts, tables, diagrams, vincula, pictures, dialogues, familiar lectures, oracular analysis, productive systems, tabular compendiums, intellectual methods, and various new theories, for the purpose of teaching grammar, may serve to deceive the ignorant, to amuse the visionary, and to excite the admiration of the credulous . . . but no contrivance can ever relieve the pupil from the necessity of committing them (rules and definitions) thoroughly to memory. . . . The teacher . . . will be cautious of renouncing the practical lessons of hoary experience for the futile notions of a vain projector." Ibid., 91. .

We have been speaking above of new tendencies and not of realizations in schoolroom practices. Abundant evidence is present that schools were very slow in conforming to the new methods. A few examples of the conditions which prevailed between 1823 and 1850 indicate that the larger part of grammatical instruction remained a slavish verbal repetition of rules and a desperate struggle with complicated parsing formulæ. This is the reason why it is appropriate to call the period "parsing period." Throughout there was devotion to what a Boston school committee of 1845 called more suggestively than elegantly "the osteology of language."<sup>11</sup>

## 2. OTHER AGENTS AND AGENCIES IN THE INDUCTIVE APPROACH.

It is not generally known that Warren Colburn, known chiefly for his work in the field of arithmetic, prepared also a series of juvenile readers consisting chiefly of excerpts from Maria Edgeworth's stories.<sup>12</sup> To each of the series Colburn attached a few of the principles of grammar, and as the child completed his reading books he completed likewise a portion of grammatical knowledge suitable for young pupils. Colburn's principles of grammar took the form of instructions to teachers; they in turn imparted them to pupils. It will be noted that this is in essence the inductive approach, a decided

<sup>11</sup> Bos. Sch. Rept., 1845, 16.

1822. Charlotte Academy, North Carolina: "Some who began to memorize Grammar since the commencement of the session parsed blank verse with uncommon ease and propriety." Coon, N. C., Sch. and Acad., 1790-1840, 230; Western Carolinian, July 9, 1822.

1827. A class in Lincolnton Academy was examined on "Memorizing English Grammar." Ibid., 212. This is but little in advance of the practice of Wayne Academy in the same State, where (in 1818) "the fifth class was examined on English Grammar from the verb 'to have' to Syntax; the sixth class as far as the Substantive; the seventh as far as the Article, and the eighth to the verb 'to be.'" Ibid., 634, Raleigh Register, Oct. 9, 1818.

1828. Report of a committee on common schools, Connecticut. "Children may be found who have committed to memory their Grammar, their Geography, and the Introduction to the Spelling Book half a dozen times each and yet no wiser for practical purposes than before. . . . Grammar and Geography are committed to memory rather than taught for after years of study; . . . the pupils often have little or no practical knowledge of either, especially the former. This is due to the fact that the books themselves are not usually adapted to the pupils' capacity, partly to the ignorance of inexperience of the teacher." Am. An. of Ed. and Ins., 1832, 247-8.

1842. Fifth report of Horace Mann. "If the teacher is conversant with no better way than to put a common textbook of Grammar into the hands of beginners and to hear lessons recited by them day after day concerning definitions and rules while as yet they are totally ignorant of the classes of words defined . . . he surely has no aptness to teach grammar. The question is often asked, When or at what age children should begin to study grammar? If it is to be studied in the way described above, one would almost be tempted to reply, never." Com. Sch. J., 1842, 337.

1845. Boston school committee gave an examination to find grade of work done. "It would seem impossible for a scholar to parse a stanza of Childe Harold correctly and yet fail to see the force of the metaphors, etc., . . . yet this is done sometimes. Such is the power of close attention to the osteology of language, to the bones and articulations, in forgetfulness of the substance that covers, and the spirit that animates them." Bos. Sch. Rept., 1845, 16.

<sup>12</sup> These books were First, Second, Third, and Fourth Lessons in Reading and Grammar. Boston, 1831, 38, 44.

improvement over Roswell Smith's plan and in signal contrast to the traditional procedure. Colburn's four series of lessons in reading and grammar were not so widely used as his arithmetics. They did not lend themselves to the scheme of making grammar a separate study and were primarily for beginners. However, the prestige of his name and success in arithmetic attracted attention to his grammatical labors. His Pestalozzian methods, with emphasis on objective, oral, visual, explanatory, and simplified instruction, did much to lay the foundation for the educational revival which sprang up along inductive lines before 1850.<sup>73</sup>

Colburn was influenced by one man whose importance is often neglected, his most intimate friend, James G. Carter.<sup>74</sup> Of him Barnard declares "to him more than any one person belongs the credit of having first arrested the attention of the leading minds in Massachusetts to the necessity of immediate and thorough improvement of the public schools."<sup>75</sup> Carter was instrumental in inducing Colburn to adopt inductive methods.<sup>76</sup> His advanced position in the philosophy of teaching grammar, as early as 1824, is remarkable. After setting forth the faulty practices of his day he adds:

The system proceeds upon the supposition that the language was invented and formed by the rules of grammar. Nothing is more false. A grammar can never be written till a good knowledge of the language is attained; and then, contrary to what the pupil supposes, the grammar is made to suit the language. Now, why neglect this natural method in teaching language to young learners?"

Again, "The schoolbooks . . . are certainly not written on the inductive method, and these are our instructors. . . . The essential principle, on which they are written, is the same through all changes. This is wrong and should be corrected."<sup>78</sup> The significance of this language lies in the fact that it was published in 1824, shortly before Roswell Smith, Colburn, and others attempted to put into grammatical textbooks the changes which Carter champions.

Reference has already been made to the fact that Neef, a representative of Pestalozzi, who was brought to America in 1806 and

<sup>73</sup> Barnard, *Ed. Blog.*, 208.

<sup>74</sup> After Colburn's death Carter wrote to Mrs. Colburn: "No man ever drew out my heart as did Warren Colburn. No one has ever filled the aching void of his loss." *Ibid.*, 217.

<sup>75</sup> *Ibid.*, 182.

<sup>76</sup> Letters to Prescott, last three chapters. Carter also was instrumental in establishing the office to which Mann was elected in Massachusetts.

<sup>77</sup> In "Letters to Prescott" (pp. 72-4) Carter argues that facts are to be learned first; that rules are merely the verbal generalization of facts. "They are abstract principles, the truth of which can neither be perceived, understood, nor believed till some single instance . . . presents itself to the learner. . . . The rule . . . is obtained by a patient induction of particular instances and is put in words, not to teach us anything, but to classify what has already been learned. . . . The abstract principles of a language give no more adequate idea of the particulars from which they have been formed than the labels give of the nature and obligation of a note. . . . The facts of a language . . . are always first learned. . . . The rules in the learner's memory are perfectly useless till he has learned the particulars or facts of the language."

<sup>78</sup> *Ibid.*, 68.

established a school in Philadelphia, was naturally outspoken in his opposition to the prevailing methods of teaching grammar. He asserted that "grammar and incongruity are identical things," and attempted to reach correct use of the vernacular by direct means associated with object teaching, rejecting practically all that had been taught under the name of grammar.<sup>79</sup>

Three other men prominent in the educational revival, especially as its changes affected the teaching of grammar, are Asa Rand, Henry Barnard, and Horace Mann. Rand was the author of "The Teachers' Manual for Instructing in English Grammar."<sup>80</sup> Rand applies in this pedagogical manual the fundamental fact about grammar, stated so effectively by Carter above: "In forming a system of rules for a written and cultivated language, its principles were obtained by discovery, not by invention." It is significant that this passage is from a lecture on methods of teaching grammar and composition before the American Institute of Instruction in 1833.<sup>81</sup> The lessons published by Rand are quite in keeping with the methods of inductive approach.

But to Henry Barnard and Horace Mann are to be ascribed the influences which most contributed to the reform that culminated in the transfer of emphasis from the word to the sentence as the unit of grammatical study, in the growing conception of grammar as a science of sentences, not as the art of writing and speaking. For five successive years (1838-1841) Barnard, then State superintendent of schools of Connecticut, sent a series of questions to every teacher of English grammar in the State. The queries involve all the essential features of inductive teaching, discussed in more detail in the following section. There is no way of estimating the influence of Barnard's constant emphasis on these new principles; the effects on school practices must have been great. Representative queries sent out by Barnard were as follows:

1. Do you make your pupils understand that the rules of grammar are only the recognized uses of language?
2. Do you give elementary instruction as to the parts of speech and rules of construction in connection with reading lessons?
3. Do you accustom your pupils to construct sentences of their own, using different parts of speech, on the blackboard?
4. Have you formed the habit of correct speaking, so as to train, by your own example, your pupils to be good practical grammarians?
5. At what age do your pupils commence this study?<sup>82</sup>

As early as 1827 William C. Woodbridge wrote in his journal:

It is not a perfect knowledge of a treatise on grammar or a surprising fluency in parsing that will be sure to produce . . . correctness of expression. . .

<sup>79</sup> Monroe, Pestalozzian Movement, 47.

<sup>80</sup> Published in Boston, 1832. A series of lessons in teaching grammar were the substance of this manual. The lessons are also printed in *Am. J. and An. of Ed. and Ins.* I, 162, etc.

<sup>81</sup> *Am. An. of Ed. and Ins.* (1833), 160.

<sup>82</sup> Barnard, *Am. J. of Ed.*, I, 692.



The evil usually to be guarded against is that of trusting too much to the didactic exposition of grammar as given wholly in school books, and not using sufficient diligence to make the whole subject intelligible and familiar by *plain conversation* and *constant practical exercise*. What is needed in teaching grammar is full oral explanation, to prepare the learner; . . . next to this is frequent practice in writing (let the composition be ever so humble)."<sup>4</sup>

Barnard and Mann at the head of State school systems were in positions of advantage for pushing the reforms they advocated. But even before Mann's influence was felt as a State officer in Massachusetts we find here and there a progressive school committee which had caught the new spirit in regard to grammar. Samuel Shattuck, of the school committee of Concord, Mass., reported to the town meeting, November 6, 1830, that—

Grammar, taught according to the usual system, is productive of little practical good. A mere knowledge of parsing does not give a person the use of language. The inductive method, which commences with learning to express the most simple and proceeds to the more complex ideas, arriving at just rules for their construction at each step of its progress, seems to be the most natural in gaining a knowledge of language. The scholar should be required to make the application of every rule, *in writing*, not merely in the examples laid down in his textbook but in describing other objects."<sup>5</sup>

This statement is highly suggestive of both the method of parsing prevalent in 1830 and the new processes which we shall consider in the following section.

After Mann had aroused the State we find very frequent statements from the school committees of the various counties indicating the pressure that was being brought to bear against the "big three" of grammatical instruction. Charlestown committee, in 1840, says:

Young men go from school with skill in parsing, or analyzing sentences, that would make the eyes of grammarians glisten with delight, and yet . . . prefer . . . the bastinado rather than compose a piece of reasoning. . . . Yet the object of learning grammar is to write and speak the English language with propriety; . . . to make the mind capable of forming independent opinions. . . . Can not something more be done for this than now is done?"<sup>6</sup>

With amusing errors in diction, the school officials of Dracot, in the same State and year, inveigh against formalism as follows:

Long lessons, correctly recited from memory, though they may sound well, and may be listened to with much interest, do not necessarily imply knowledge. They may show that a scholar has been industrious in getting his lessons. . . . Against this hollow, deceptive practice . . . your committee have taken a decided stand; . . . have given teachers strict charge . . . to go, not over them [lessons] but into them; not round them but through them. . . . In doing this, our object has been to learn . . . scholars to reason as well as to commit to memory."<sup>7</sup>

<sup>4</sup> Am. An. of Ed. (1827), 681-2.

<sup>5</sup> Am. J. and An. of Ed. and Ins. (1831), 138.

<sup>6</sup> Mass. Sch. Ret. (1840), 49.

<sup>7</sup> Ibid., 55, 6.

### 3. CHIEF FEATURES OF THE INDUCTIVE MOVEMENT APPLIED TO GRAMMAR.

The chief features of the inductive movement as they were applied to grammar have been suggested in the preceding sections. They were three in number: First, the attempt to make learners understand thoroughly every step of their progress; second, the use of oral and visual instruction as a means of removing the tedium of book learning; and, third, the addition of the pupil's own activity in actually applying principles as he learned them, not only by means of additional exercises for parsing and correcting false syntax but also of exercises in sentence building and composition. All these were to be taught in close association with grammar.

#### REVOLT AGAINST MEANINGLESS INSTRUCTION.

The revolt against instruction meaningless to pupils was led by Horace Mann, whose guiding principle was the zealous advocacy of oral as against exclusive textbook instruction, of the word as against the traditional alphabet method, of the objective, illustrative, and explanatory method of teaching as against the abstract and subjective.<sup>87</sup> Mann's leadership is clearly seen in the thinking of school committees of Massachusetts, in the decade between 1840 and 1850. They frequently objected to teaching the signs of thought, rather than the thought itself.<sup>88</sup> In 1840 the committee of the town of Athol expressed the opinion: "Confessedly one of the most serious defects existing in the system of education . . . is the communication, to the mind of the youth, of the signs of thought more than the thought themselves."<sup>89</sup> This struck to the very heart of the error of teaching in both reading and grammar up to 1850. The word was the unit of approach, the idea signified of secondary importance. Favorable comment upon the results of normal training for teachers with special reference to making the pupils understand is not uncommon. For example, in the Lancaster report of 1840 we find:

The practice of calling the attention of classes to the meaning of what they study is of the greatest value, but it is comparatively new in our schools and by

<sup>87</sup> Anderson, *Hist. of Com. Sch. Ed.*, 227.

<sup>88</sup> A letter from a teacher who signs himself "Expertus sum," giving an imaginary conversation with a pupil in grammar, is indicative of numerous ideas found in educational journals of the period.

"'You say that you read in the English Reader; do you study grammar?'

"'Yes, sir; I have been through it several times, but I never parsed any yet.'

"'Whose system do you study?'

"'Oh, I study my own grammar; but it is almost worn out. I shall have to borrow then, for father says he can't afford to buy me any new books this summer.'

"'I meant who is the author of the grammar which you use?'

"'Author? I don't know what you mean.'"  
*Am. J. and An. of Ed. and Ins.*, I, 476.

<sup>89</sup> *Sch. Rep.* (1840), 87.

no means yet fully used. We believe that if words are good for anything it is for their meaning. . . . Let memory be joined with understanding."

In close association with the agitation against the teaching of meaningless terms was the growing demand that children must understand the meaning of the grammatical principles they were called upon to acquire. This is in the mind of the committee of Carver, Mass., in 1839, when they reported: "We can not say that there are many who get a thorough knowledge of grammar in our schools at the present day, but we think that there are many who derive a considerable understanding of it," whereupon they contrasted it with the grammar teaching of the committee's youth.<sup>91</sup> Not so favorable were the opinions of the committee of Cummington County:

Your committee wish to notice that . . . the method of instruction is too formal and mechanical, and not sufficiently directed to the understanding. Teachers do not sufficiently illustrate the subject in which the scholar is engaged. The scholar commits to memory a certain number of words, without attaching them to a single idea, whereas ideas instead of words ought to be learned."

In a similar manner the school authorities of Amesbury demanded in teachers "the *ability* of communicating in an understanding and profitable manner what they are called upon to teach."<sup>92</sup> Those of Essex suggested "the propriety of being cautious when engaging teachers, to procure, if possible, . . . men who have some *tact* for awakening and bringing out the powers of youth."<sup>93</sup> More forcefully than elegantly the Athol committee expressed much the same sentiment.

A teacher is not like a jug, which holds back its contents from necessity, or like a cow which holds up her milk from inclination, the nearer full they are; he should rather be like a rain cloud, which sends down blessings in showers, and like a fountain ever flowing over."

<sup>91</sup> Ibid., 103.

The school committee of Weston, in 1841, inveighed against verbal instruction: ". . . the understanding of the scholar is not . . . properly exercised. A correct verbal recitation seems the principal, if not the only, object to be attained; . . . while the scholar garners up a multitude of words, his mind adds nothing to his stock of ideas. Let the young be taught to think." Ibid., 1841, 69.

The Westerfield committee, in the same year, voiced the oft-repeated complaint: "The efforts of too many of our teachers have been confined to impart to the scholars' *memory* a series of *words*, rather than to open their *understanding* to the reception of *ideas*," Ibid., 128.

<sup>92</sup> Ibid. (1839), 413.

<sup>93</sup> Ibid., 4.

<sup>94</sup> Ibid., 1840, 143.

The Springfield committee felt the same need: "Let the rules of grammar . . . be not only committed to memory, but let their principles be understood, . . . let the subjects be so incorporated into . . . the thought . . . that their contents may be reproduced and transmitted." Ibid., 172. That of Ashby also reported: "Another point noticed was the want of familiar explanation; . . . some teachers seemed to be content with receiving the answers given in the book. . . . Such parrot-like recitations can be anything but interesting to the teacher or pupil. Let the teacher, by familiar inquiries and explanations, know that the subject . . . is fully understood." Ibid., 1841, 40.

<sup>95</sup> Ibid., 8.

<sup>96</sup> Ibid., 75.

A glimpse into one of the progressive schoolrooms of 1829 shows us grammar being taught far in advance of its time. William A. Alcott, afterwards associated with Woodbridge in the editorship of the *American Journal of Education* and the author of many articles on methods of teaching, as a young man taught a district school of Southington, Conn. Here he made marked advances especially in the teaching of etymology. The account of his method of teaching pupils the meaning of a verb reminds one of the actions often seen to-day in the classrooms of modern-language teachers who pursue what is known as "the direct method." Without any preliminary information in regard to what he was going to do, Alcott would ask the pupils to take their slates and pencils. Then stamping the floor or clapping his hands he would require them to write down what they saw him do. This process he would have repeated with the actions of the pupils as well as his own. "Now," he would say, "what have you been doing?" He would point out that the words they had written described actions. "These words describing actions are verbs. Now, what is a verb?" In this manner the children were said to acquire as much knowledge in 10 lessons as in an entire term under the older methods.<sup>88</sup>

The second feature of the educational revival which affected instruction in grammar was the attention given to visual and oral instruction. In 1839 the school committee of Roxbury, Mass., struck a note not frequently heard, namely, that the force of the teacher's example in speaking and writing is the most important agency of instruction. Their statement was that—

teachers should take care not to undo all their efforts to teach grammar by the bad example of using false grammar themselves. They should watch over their own . . . modes of address, as well as those of the children, for example's sake. . . . It is necessary that teachers be . . . exemplary in conversation. . . ."

#### ATTENTION TO VISUAL AND ORAL INSTRUCTION.

The teacher's example is not a direct phase of what is known as oral instruction. The term means rather that children are taught principles by word of mouth; that is, the explanatory talks which Kirkham had included in his text are to be presented in simple explanations by the teachers themselves. This practice was so unfamiliar in some towns that it attracted the notice of visiting committees, as that of Newbury, Mass., which wrote, in 1839: "Another improvement we noticed was the method of some teachers of communicating knowledge . . . by familiar conversation and by questions on common subjects."<sup>89</sup> The Egermont committee of 1843 found occasion to praise—

<sup>88</sup> Barnard, *Ed. Blog.*, 261; also *Am. J. of Ed.* IV, 641.

<sup>89</sup> *Sch. Ret.* (1839), 365.

<sup>90</sup> *Ibid.*, 1839, 33.

the example in the winter school of district No. 2, of much oral instruction instead of the common practice of very rigid confinement to the lesson book; . . . a good teacher can *talk* into a child, in the space of three or four months, an amount . . . of practical knowledge . . . which the child could not *read* into himself in the space of as many years."

Horace Mann, reviewing Edward's "First Lessons in Grammar," 1843, asserts:

If a child is made to feel that the subject [grammar] is hard to understand and that he is expected to grope his way in darkness . . . he will be very likely to construct a prejudice against it. . . . Many a teacher has felt that there must be a better way of teaching grammar. . . . Edward's "First Lessons" is not the old process of committing to memory and repeating. . . . A method is given by which a teacher explains whatever is difficult to the learner. . . . The book is the substance of lessons in grammar given orally by the author in school.<sup>1</sup>

This same note is struck by an editorial by William B. Fowle in 1850:

Grammar can be taught by oral instruction, by correcting the ungrammatical language of the pupils, and by the example of the teacher much more easily and more effectively than by committing to memory and reciting. . . . An accomplished teacher may do more for a class of 20 in one hour, by exercises on the blackboard, than he can do in a whole day for an individual who studies and parses from a textbook.<sup>2</sup>

The first 24 pages of William H. Wells's "School Grammar," 1846, are devoted to a section on oral instruction in English grammar, prepared at the request of Barnard, at the time commissioner of public schools in Rhode Island, and already published as one of his series of educational tracts.<sup>3</sup> This section is not a part of the grammar itself but is frankly given over to explicit directions to teachers as to how to use the inductive methods and how to use illustrative exercises in composition.<sup>4</sup> One hundred and fifty thousand of these textbooks were sold in the first five years. We have seen that his books

<sup>1</sup> Ibid. (1843), 188.

<sup>2</sup> Com. Sch. J., 1843, 167-8.

"After the part of speech . . . had been defined by the teacher and clearly comprehended by the pupils, they went to their seat to write examples in a book kept for that purpose. It was sometimes found that listening to an explanation . . . and conversing . . . were not sufficient . . . on which account a textbook was required. This constructive exercise is extremely interesting; children are pleased with *doing* something." Ibid.

<sup>3</sup> Com. Sch. J. (1850), 146.

<sup>4</sup> Wells, Sch. Gram., preface, IV.

<sup>5</sup> A sample of Wells's advice concerning instruction in the parts of speech may be quoted: "The classification of words may be introduced by referring to the different kinds of trees: to the different kinds of animals; or to any other collection of objects that admit of a regular division into distinct classes. Thus when we go into a forest, we find that the number of trees about us is greater than we can estimate. But we soon observe that a certain portion of them have certain resemblances, while they differ essentially from all the rest; . . . by extending our observation, we find . . . all trees . . . belong to a few very simple classes, . . . Oak trees, . . . Pine trees. . . . Just so it is with the words of our language. . . . By some introductory illustration the curiosity of a class of beginners may be excited. . . . The teacher should lead his pupils to take an active part in these lessons from the beginning." Ibid., II, 12.

were scattered through various States. Wells himself later became superintendent of schools in Chicago. It is probable that his influence more than that of any other man really introduced oral instruction and explanation into classroom instruction in English grammar.

Visual instruction was also brought into the field of teaching grammar after 1825. As late as 1835 the idea of using slates and blackboards was exceedingly novel; in only a few schools does it appear to have been attempted before that time. William A. Alcott, whom we have seen above dispensing with grammar books as far as possible, testifies that in 1830 "the idea of studying grammar with slates and pencils was so novel that I found no difficulty in gaining general attention." Children wrote names of different objects held before them; they read the lists aloud, classified them, and wrote new lists of objects of which they could think. Thus was employed a combination method of visual instruction and pupils' activity.<sup>5</sup> Rules and regulations for the schools of Salem, Mass., require that "every lesson (in grammar) shall be accompanied by operations on the blackboard and slates (from the younger pupils), and exercises in parsing shall be required from the older classes."<sup>6</sup> In an article on normal schools, in 1843, the advice is given that—

the first principles should be taught orally and by the blackboard and slate. So taught, they are easy and pleasant, and throw valuable light upon the arts of reading and composition. The use of the blackboard is very important. Write on the board, "It is she," not "It is her!" Require the pupils to make for themselves, and write on their slates, ten examples of similar mistakes, and their corrections. The rule is learnt better than by months of repeating the rule in parsing, where the mind is little better than passive.<sup>7</sup>

Again, James Ray, a prominent teacher of this decade, in 1830 advises:

In the study of Grammar the blackboard may be used to exhibit the inflections of the various parts of speech; it may also be used in syntax, to point out the connection of the principal words to each other. The method of doing this is by writing on the board the sentence to be parsed, and then connecting by curved lines those words that have any grammatical connection with each other. The instructor at the same time pointing out what that relation is. It may be observed that in teaching grammar the use of the blackboard is confined to the teaching the elementary principles of the science, [and] is used by the teacher for the purpose of illustrating these principles.<sup>8</sup>

The foregoing is the earliest reference the writer has seen pointing to the use of diagrams, which, after the middle of the century, came into great prominence in the analysis of sentences.

Massachusetts school committees often spoke in commendation of the new movement for blackboards facilitating instruction in gram-

<sup>5</sup> Am. An. of Ed. and Ins. (1837), 165.

<sup>6</sup> Com. Sch. J. (1842), 78.

<sup>7</sup> Ibid. (1843), 331

<sup>8</sup> Ray, Transactions of College Teachers, VI, 104.

mar. For instance, the Dighton committee said, in 1843: "The blackboard has been introduced into several schools. . . . By means of this the study of Orthography and English Grammar has been facilitated."<sup>9</sup>

Samuel J. May gives a hint concerning the very earliest appearances of blackboards, when, describing a visit to the school of Rev. Father Francis Brosius in Boston, in 1814, he said: "On entering his room we were struck at the appearance of a *Blackboard* suspended on the wall. . . . I had never seen such a thing before . . . and there I first witnessed the process of analytical and inductive teaching."<sup>10</sup> It is quite certain, however, that not for two decades after 1814 did the rank and file of Massachusetts schools adopt this device now regarded as so indispensable for visual instruction. William C. Woodbridge, in the report of a Boston school committee on improvements, in 1833, strongly recommended slates and cards in the primary schools. He added that means for visual instruction were positively forbidden in Boston by the general committee.<sup>11</sup> In the common schools of Connecticut as late as 1832 "slates, blackboards, and apparatus are almost entirely unknown in the district schools," a committee on common schools testified.<sup>12</sup> Massachusetts counties in general waited for the boards until after 1840.<sup>13</sup>

#### INTRODUCTION OF CONSTRUCTIVE WORK.

The third prominent feature of innovating methods before 1850 was the introduction of constructive work on the part of the pupils, which gradually took the form of composition. Of course dictation and copying exercises were very old,<sup>14</sup> and disputations dated far before the beginnings of instruction in the vernacular. Moreover, writing of a sort had accompanied work in grammar in the days of Murray's dominance in American schools. But composition as an adjunct to the study of grammar did not become prominent until Barnard, Fowle, Mann, Carter, Rand, and others championed and advanced it. Fowle, in an editorial of 1852, says that—

even now, a large number of our schools have no composition taught in them. No wonder, for not one teacher in 10 can write with tolerable ease and correctness. In an institute in Massachusetts (1850) we required 117 teachers to write what they could in fifteen minutes on "happiness." At the end of fifteen minutes, but seven teachers had done anything, and four of these had requested to be excused from writing. The three more periods of fifteen minutes were given, and only twenty teachers had been able to write anything in the end.

<sup>9</sup> An. Rept. Supt. Ed. (1843), 234.

<sup>10</sup> Barnard, Ed. Blog., 38.

<sup>11</sup> Am. An. of Ed. and Ins. (1833), 587.

<sup>12</sup> Ibid. (1832), 248.

<sup>13</sup> Ashbunham comments, in 1841: "Schoolrooms have been more generally furnished with blackboards." Rept. Supt. Ed. (1841), 71. See also *ibid.*, 78; 1843, 234; 1841, 27.

<sup>14</sup> See Chap. V, p. 127.

Fowle then pertinently asks: "How can such teachers give instruction in English Grammar?"<sup>15</sup>

The Massachusetts school reports are especially clear in indicating that composition as such was a product of the decade 1830 and 1840. In 1840 Sterling reported that "the exercise of composition has been introduced into some schools with encouraging success. This important branch has been too much neglected in former years. . . . English Composition should come next in order . . . to grammar."<sup>16</sup>

The committee of Carver, in 1839, explained that 20 years earlier the art of composing and writing received no attention:

It is true we were set to making marks, and dashing and pointing them with our pens (writing) . . . but . . . there are but few now, who were scholars then, that can compose, write and fold a letter, in a handsome form, as large numbers of our children from ten to fifteen years of age can.<sup>17</sup>

The Rockport committee "urged upon the more advanced scholars, who are acquainted with grammar, the importance of writing composition. . . . This should be a standing exercise in our schools. . . . This exercise is too much regarded as a matter of form."<sup>18</sup> Here it is to be noted that composition first came into the curriculum only after the pupil had some acquaintance with grammar. Later periods reversed the order, composition preceding grammar. This constitutes a very important consideration. The committee of Dana, in 1843, commended oral composition in the following language:

The practice was particularly recommended by the committee, of urging the classes, instead of giving arbitrary rules from the book, to explain their operation, and to give their reasons in their own language. . . . Exercises in composition have been attended to in some of the schools.<sup>19</sup>

Only one Massachusetts committee, in 1843, found a satisfactory condition:

In the juvenile department in this school there was a new thing exhibited at the examination, about fifteen letters, and pieces of original composition, written by little children under ten years of age, and written with a simplicity, correctness and beauty, which surprised as much as it delighted us.<sup>20</sup>

The list of questions which Barnard sent to the Connecticut teachers (1838-1841, inclusive) are indicative of the most advanced thought of the day.<sup>21</sup>

1. Do you classify your pupils in reference to teaching composition?
2. Do you accustom your youngest pupils to write or print words and short sentences on the slate, from your dictation?
3. Do you ask them to print or write something about what they have seen in coming to school, or read in the reading lesson?
4. As a preliminary exercise in composition, do you engage them in familiar talk about something they have seen in their walk, or has happened in or about

<sup>15</sup> Com. Sch. J. (1852), 375.

<sup>16</sup> Mass. Sch. Ret. (1840), 123.

<sup>17</sup> Ibid. (1839), 413.

<sup>18</sup> Ibid. (1841), 27.

<sup>19</sup> Ibid. (1843), 83.

<sup>20</sup> Ibid. (1843), 215.

<sup>21</sup> Am. J. of Ed., I, 692.



the school? and when they have got ideas, and can clothe them orally in words, do you allow them as a privilege to write or print the same on the slate or paper?

5. Do you give out a number of words, and then ask your pupils to frame sentences in which those words are used?

6. Do you require your older pupils to keep a journal or give an account of the occurrences of the day, as an exercise in composition?

7. Do you instruct your pupils as to the most approved form of dating, commencing, and closing a letter?

8. Do you require your pupils to write a letter in answer to some supposed inquiries about some matter of fact?

9. Do you request your older pupils to write out what they can recollect of a sermon or lecture they have heard, or of a book they have been reading?

10. At what age do your pupils usually commence writing easy sentences or compositions?

The exceeding reluctance with which authors of treatises on grammar and teachers of this subject came to the realization that constructive written work on the part of pupils ought to accompany every stage of their progress is clearly marked in America before 1850. Priestley as early as 1772 recommends the practice in his preface,<sup>22</sup> but neither his nor contemporary textbooks are constructed with this purpose in mind. Even earlier than Priestley we have seen the Philadelphia Academy and other schools of advanced ideas employing composition, but not primarily as an adjunct to grammar.<sup>23</sup> But the fact is that the practice was not prevalent in American schools. This is evident not only from the complete absence of suggestions for composition in the earlier grammars but also from frequent testimony.<sup>24</sup>

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<sup>22</sup> "We must introduce into the schools English grammar, English composition, and frequent English translations from authors in other languages. The common objection to English Compositions, that it is like requiring brick to be made without straw (boys not being supposed to be capable of so much reflection, as is necessary to treat any subject with propriety) is a very frivolous one since it is very easy to contrive a variety of exercises introductory to themes upon moral and scientific subjects, in many of which the whole attention may be employed upon language only; and from thence youth may be led on in a regular series of compositions, in which the transition from *language* to *sentiment* may be as gradual and easy as possible." Priestley, 3d ed., preface, XXI.

<sup>23</sup> See Chap. III, p. 46.

<sup>24</sup> "We were two or three years in grammar; . . . we were never required to write a sentence of English, and we never did write one as a school exercise." Wallis, speaking of Boston schools about 1800. *Com. Sch. J.* (1850), 5.

"We were educated at one of the best schools . . . but, although we studied English grammar seven years and received a silver medal for our proficiency, we never wrote a sentence of English at school and never did anything which implied a suspicion on our part that grammar had anything to do with writing or conversation." *Ibid.*, editorial (1849), 258.

"Composition was unknown to us. We were supposed to acquire 'the art of writing the English Language with propriety' by a textbook study of Orthography, Etymology, Syntax and Prosody, without writing even a sentence." Swett, speaking of the period, 1830-1840, *Am. Pub. Sch.*, 122.

"We think it would be but a counterpart to our grammars for children if some philosopher were to publish a treatise as a mode for discovering the center of gravity, and the laws of motion, in order to teach the children how to walk and run." *Review of Everest's English Grammar*, 1835, *Am. An. of Ed. and Ins.* (1835), 429.

It is significant, then, to find grammars after 1820 deliberately planning exercises in composition. They do not attempt "themes upon moral and scientific subjects," as Priestley advised; indeed, their suggestions for written work may not properly be called composition at all. Roswell Smith's title, "Sentences to be written," is far more exact. Kirkham had nothing to contribute to this advance, contenting himself with elaborate parsing and false syntax. Gould Brown follows Murray in placing exercises after each of the four divisions of his grammar, urging that the pupils "should *write out*"<sup>25</sup> their answers. Smith is entitled to the credit of making the first distinctive step toward the practice of sentence building. Scattered through his text are numerous headings entitled "Sentences to be written." The purpose is to employ the constructive activities of pupils as a means of fixing the grammatical principles they have just been studying.<sup>26</sup> Remembering the dates of Smith's books—1829 and 1831—we see that he stands in point of time at the head of the movement for composition in Massachusetts discussed above.<sup>27</sup>

Wells, in 1846, urged that teachers write models on the board, and that they also write lists of words and have the pupils compose sentences embracing them. He goes a step in advance, advising: "After the pupils have in this manner exemplified the various modifications of the parts of speech, they should be required to write several compositions of considerable length."<sup>28</sup> Naturally we find Greene, in his "Analysis of Sentences," taking even more advanced ground. In his preface he affirms that "the only successful method of obtaining a knowledge of that art (writing and speaking correctly) is by means of construction and analysis."<sup>29</sup> In the text proper construction exercises begin on page 13, a footnote saying: "These exercises may be written or recited orally. It is recommended that the practice of writ-

<sup>25</sup> English Grammar, 100.

<sup>26</sup> Sentences to be written:

"Q. Will you compose two sentences, each having a different adjective pronoun? One, having a demonstrative pronoun? One, having an indefinite pronoun used as a noun?" Eng. Gram. Prod. Sys., 58.

<sup>27</sup> Richard G. Parker's book, "Progressive Exercises in English Composition," Boston, 1832, enjoyed a remarkable sale. It reached its forty-fifth edition in 1845. New editions were published in 1855 and 1856. Parker published a "Sequel" in 1835 and, in 1844, "Aids to English Composition," which reached its twentieth edition in 1850. The sale of these series is indicative of the trend toward composition. Parker, collaborating with C. Fox, in 1834, published also "Progressive Exercises in English Grammar," Part II, 1835, Part III, 1840. A favorable review of the first book describes it as being "without a formidable array of long definitions and unintelligible rules." Am. An. of Ed. and Ins. (1835), 47.

<sup>28</sup> Sch. Gram., 24.

<sup>29</sup> Analysis, 4. Contrast this with Gould Brown's statement: "The only successful method of teaching grammar is to cause the principal definitions and rules to be committed thoroughly to memory, that they may ever afterwards be readily applied." Brown, preface, VI. The contrasted statements indicate the two radically different conceptions of grammatical instruction, one of which was passing, the other of which was entering, in 1850.

ing lessons should be adopted as a general rule." <sup>30</sup> Moreover, Greene desires that "the exercises, after being corrected, should be copied into a writing book." <sup>31</sup>

As may be expected, it is impossible to assign a date at which constructive work, closely associated with grammatical study, entered school practice. However, it appears safe to say that it was the outcome of the influences we have seen at work in the period between 1825 and 1850. <sup>32</sup> The discussion may be fittingly closed by citing the practice of two schools, which for their generation were exceedingly progressive. A teacher of 1830, describing methods which he has found profitable, recommends voluntary composition, the pupils to continue their work on their own account by keeping journals. The variety of exercises suggested includes writing abstracts from memory; taking notes on lectures; abridgments; dialogues, real and imaginary; stories for children; narratives of personal adventure; discussion of questions; and the like. The voluntary reading of articles at stated periods is also recommended. <sup>33</sup> Of course this procedure is exceedingly advanced; it is practically composition as we understand the term to-day. A more representative program of the period in question is found in the following account of a female school of Boston in 1832:

Care has been taken to improve all *occasional* opportunities of directing the attention of the pupils to the etymology, the signification, and the appropriate use of words, as they occur in connection, and while the interest felt in their meaning is still fresh in the mind. Exercises in the defining of words and in the distinguishing synonyms are occasionally prescribed. The practice of substituting equivalent words, phrases, sentences, and thoughts is likewise employed. The analysis of figurative language to the same end. A practical course in grammar is comprehended in the daily exercises in composition and a systematic view of the principles of the science has been taken. <sup>34</sup>

#### GENERAL SUMMARY.

Methods of teaching grammar have now been traced for about 100 years from its beginnings in America about 1750 to the middle of the nineteenth century. For the first 75 years instruction centered almost

<sup>30</sup> Analysis, 13.

<sup>31</sup> Ibid., 18, 1.

<sup>32</sup> John Flint, who published "First Lessons in English Grammar upon a Plan Inductive and Intellectual," in 1833, deserves credit for pioneer work in sentence building, antedating Greene 12 years. An editorial in the *American Annals* says: "Decidedly the best introductory work we have seen. The pupil's knowledge is given by examples and sentences in which he finds words corresponding to definitions, and the pupil writes sentences as soon as may be." *Am. An. of Ed. and Ins.* (1833), 334. Dyer H. Sanborn's "Analytical Grammar," 1836, receives similar commendation. Ibid. (1837), 143. F. W. Felch's "A Comprehensive Grammar," 1837, affirms on the title page: "Designed to make the study of grammar and composition one and the same process." Ibid. (1837), 525. Of Wells and Greene a committee on Boston free schools declared, in 1851, that they were adopted "all over the land" as a protest against teaching Murray's Latin grammar for English." *Com. Sch. J.* (1851), 36.

<sup>33</sup> Frodore, *Am. An. of Ed. and Ins.*, I, 266-9.

<sup>34</sup> *Am. An. of Ed. and Ins.* (1832), 215.

entirely around memorizing, correcting false syntax, and parsing. Of these all three were transferred directly from practices customary in studying Latin grammar. About the year 1823 changes began to creep into class instruction. Although the three traditional methods still predominated, especially parsing and memorizing, influences were at work which made the need of remedies felt in the educational revival of the second quarter of the century. Most conspicuous among the innovations were, first, earnest efforts to make the pupils understand; second, visual and oral instruction; and, third, the beginnings of constructive work. Most conspicuous among grammarians were Kirkham and Smith, Wells and Greene; among educational leaders, Carter, Rand, Barnard, and Mann. The results of their labors were indeed a veritable revolution, both in the conception of grammar and in the methods of instruction, a revolution the nature of which is well illustrated by comparing Goold Brown's statement of 1823 with the corresponding statement of Greene in 1847:

The only successful method of teaching grammar is to cause the principal definitions and rules to be committed thoroughly to memory. (Brown.)

The only successful method of obtaining a knowledge of the art is by means of construction and analysis.<sup>22</sup> (Greene.)

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<sup>22</sup> Consideration of methods after 1850 is reserved for another study. Between 1850 and 1920 we may distinguish three fairly marked periods: That of 1847-1873, which may be termed the inductive period, characterized by the methods whose origin has just been presented; that of 1873-1891, which may be termed the rhetorical period, marked by Swinton's "Language Lessons," White's grammars (1871), the Harvard entrance requirements of 1873, and the Connecticut order dropping grammar in 1891; and that of 1891-1920, which may be termed the elimination period or the incidental study period, the chief tendency of which is the gradual subordination of formal grammar to its proper place as incidental to the study of composition and literature.

## APPENDIX A.

### CHRONOLOGICAL CATALOGUE OF ENGLISH GRAMMARS IN AMERICA BEFORE 1800.

Henry Barnard, speaking of his list of early American textbooks,<sup>22</sup> indicates the viewpoint in which the present list is compiled. He says: "This information in many cases is very imperfect and unsatisfactory, but it will at least serve as the clue to further inquiry; . . . many errors . . . and omissions will doubtless be detected in regard to those books which the compiler has not seen, and whose titles, dates, and places of publication and authorship have been gleaned from numerous sources not always reliable."

#### GRAMMARS USED IN AMERICA BEFORE 1800.

1706. Greenwood, James. *Essay Toward a Practical English Grammar*, 2d ed., London, 1711, 12°, 315 pp.
1724. Jones, Hugh. *A Short English Grammar: An Accidence to the English Tongue*. London.
- See Chapter II for further description of the first 10 grammars in this list.
1740. Dilworth, Thomas. *A New Guide to the English Tongue*. Containing a Brief but Comprehensive English Grammar. London.
1751. Harris, James. *Hermes, or a Philosophical Inquiry Concerning Universal Grammar*. 6th ed., 1806, 468 pp., 8°.
- Harris's work was not a textbook, but was influential in shaping most of the grammars earliest in America. Murray acknowledges his indebtedness. (Introduction, 5.) Harris was an innovator and simplifier among grammarians, using only four classes of words, after Aristotle. Book reprinted in Philadelphia. Wickersham, *Hist. of Ed. in Pa.*, 202. Reached 7th ed., 1825. *Com. Sch J.*, III, 209.
- 175—. Wiseman, ———. *English Grammar*.
- Advertised, *Boston Evening Post*, Oct. 27, 1760.
1753. Fisher, A. *A Practical New Grammar*. 28th ed., London, 1795, 176 pp., 12°.
- Follows Harris with four kinds of speech; no cases, no moods, only three tenses. Brown used "A New Edition, Enlarged, Improved and Corrected, 1800."
1758. Lowth, Robert. *A Short Introduction to English Grammar*. 1st Amer. ed., London, 1775, 132 pp. 12°.

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<sup>22</sup> Barnard's list, *Am. J. of Ed.*, XII, XIII, XIV; also William H. Wells's list in the preface of his "A Grammar of the English Language." Boston, 1852, edition. A writer who signs himself W. H. W. (probably William H. Wells) began a series of articles on English grammars in *The Common School Journal*. Illness compelling him to cease his labors, another writer who signs his articles "Wallis" (probably W. M. Fowle), continued the series under the title "Grammars Published in America before 1804." *C. S. J.*, IX, X, XI, XII. A fourth list, "American Textbooks," anonymous, is found in Barnard's *American Journal of Education*, 14, 600. For all books published in America before 1792 Evans's "American Bibliography" is the standard source. Evans is not infallible, however; a few books before 1792 have apparently not come to his attention. Gould Brown, in his "Grammar of Grammars," 1851, presents a list of some 350 authors or compilers of grammatical textbooks.

The present writer has added several items of information, mostly fragmentary, from announcements of publishers, from book reviews in the early educational journals, and from stray references in town histories, reports of school societies, addresses in educational conventions, and pedagogical tracts.

1760. [Anonymous.] *The British Grammar*. 1st American ed., 1784, 251 pp., 8°.
1760. Gough, James. *English Grammar*. 212 pp., 18°.  
Advertised, *Providence Gazette*, Oct. 24, 1767. 1760 is date of 2d ed. "A publication of little merit, much of it borrowed from earlier writers." W. H. Wells, *Com. Sch. J.*, III, 210.
1762. Priestley, Joseph. *The Rudiments of English Grammar*. 3d ed., London. 202 pp., 18°.  
Reprinted in Philadelphia. Wickersham, *op. cit.*, 202. Simplified, like Harris and Fisher. "A production of little merit." Wells, *op. cit.*, 229.
1763. Ash, John. *Grammatical Institutes, or an Easy Introduction to Dr. Lowth's English Grammar*. London, 163 pp., 24°.  
First American reprint, 1774, by Hugh Gaine, New York. Evans, 5, 5.
1765. Johnson, Samuel. *An English Grammar; the First Easy Rudiments of Grammar Applied to the English Tongue By One Who is Extremely Desirous to Promote Good Literature in America, and Especially a Right English Education for the Use of Schools*. New York, 36 pp., 12°.  
This appears to have been the first English grammar prepared by an American and published in America. Evans, *Am. Bibl.*, 4, 18, 10025. See Chap. II, p. 35.
1766. Burn, John. *A Practical Grammar of the English Language*. Glasgow, 18°.
1767. Buchanan, James. *A Regular English Syntax*. 194 pp., 12°.  
First American reprint, 1780. Evans, 6, 68. "A most egregious plagiarism, borrowed from the British Grammar, half the volume copied verbatim." Wells, *op. cit.*, 3, 237.
1772. Adam, Alexander. *Latin and English Grammar*. Edinburgh.  
"An English Grammar that was connected with Adams's Latin Grammar . . . far more English than Murray's." Wallis, *Com. Sch. J.*, XII, 118.
1773. Byerley, Thomas. *A Plain and Easy Introduction to English Grammar*. New York.
- 177—. Hall, James. *English Grammar*.  
Hall founded a school (1778) in Bethany, N. C. He conducted classes in English grammar; wrote and published a book that had wide circulation. Raper, *The Church and Private Schools of North Carolina*, 55, citing Foote's *Sketches*, 336.
1779. Curtis, Abel. *A Compend of English Grammar, Being an Attempt to Point Out the Fundamental Principles of the English Language*. Dresden (Dartmouth College), 49 pp., 16°.
- Benezet, Anthony. *An Essay Toward the Most Easy Introduction to the Knowledge of the English Grammar*. 6 pp., 12°.  
Compiled for the Pennsylvania Spelling Book. Evans lists the grammar also as a separate book. Evans, 6, 4.
1784. Webster, Noah, jr. *A Grammatical Institute of the English Language*. In three parts. Part 2, *Containing a Plain and Comprehensive Grammar Grounded on the True Principles and Idioms of the Language*. Hartford. 139 pp., 16°.
- Kenrick, William. *A Rhetorical Grammar of the English Language*. Philadelphia.
1785. Bingham, Caleb. *The Young Ladies Accidence; or a Short and Easy Introduction to English Grammar; Designed Principally for the Use of Young Learners, More Especially Those of the Fair Sex, though Suitable to Both*. Boston. 45 pp., 16°.
1786. Mennye, J. *An English Grammar*. New York.
1787. Ussher, George M. *The Elements of English Grammar*. London.  
American edition, 1790, Portsmouth, N. H. Evans, 8, 98. Printed for J. Metcher, especially for young ladies. 3d Am. ed. in 1804, Exeter, N. H.

1787. Harrison, Ralph. *Rudiments of English Grammar*. Philadelphia, 102 pp., 18°.

Mentioned by Wickersham as one of the first used in Pennsylvania. Hist. of Ed. in Pa., 202. An English book, 9th ed., Philadelphia, 1812.

- 1778—. [Anonymous.] *A Comprehensive Grammar*. Philadelphia, 173 pp., 18°. 1789 is date of 3d ed. Evans, 7, 305.

1790. Webster, Noah. *The Rudiments of English Grammar*. Hartford, 80 pp., 16°.

The Rudiments was first printed as part 2 of the Little Readers' Assistant; then, at the request of the Hartford school authorities, was twice printed as a separate book, in 1790. Evans, 8, 105.

1791. Hutchins, Joseph. *An Abstract of the First Principles of English Grammar*. Hartford, 24°.

Mentioned by George A. Plimpton. Murray, Hist. of Ed. in N. J., 51. "Compiled for the use of his own school." Title page, Evans, 8, 164.

1792. Alexander, Caleb. *A Grammatical System of the English Language*. Boston, 96 pp., 12°.

"Comprehending a Plain and Familiar Scheme of Teaching Young Gentlemen and Ladies the Art of Speaking and Writing correctly their Native Tongue." Evans, 8, 242. 10th ed., Keene, N. H., 1814.

- [Anonymous.] *The Young Gentlemen and Ladies' Accidence, or a Compendious Grammar of the English Tongue, Plain and Easy*. Boston. Attributed to Noah Webster.

- Humphries, Daniel. *The Compendious American Grammar, or Grammatical Institutes in Verse*. Portsmouth, N. H., 71 pp., 12°.

- Tichnor, Elisha. *English Exercises*. 2 pp., 18°.

1792 is 3d ed. "All the rules of Parsing . . . facilitates grammatical knowledge." Evans, 8, 363.

1794. Knowles, John. *Principles of English Grammar*. 3d ed.

1795. Carroll, James. *American Criterion of English Grammar*. New London, Conn.

- Dearborn, Benjamin. *The Columbian Grammar*. Boston, 12°.

George A. Plimpton assigns date, 1792. Murray, Hist. of Ed. in N. J., 51. Used the question-and-answer method.

- Miller, Alexander. *Concise Grammar of the English Tongue*. 119 pp., 12°.

- Murray, Lindley. *English Grammar, Adapted to the Different Classes of Learners*. London.

1796. *An English Grammar*.

Barnard lists, by printer; information very fragmentary.

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10th ed. in 1817. Succeeded Bingham's Young Ladies' Accidence in Boston schools.

1897. Burr, Jonathan. *A Compendium of English Grammar*. Boston, 72 pp., 18°.

1797. Macintosh, Duncan. *An Essay on English Grammar*. Boston, 239 pp., 8°.

- 179—. Marshall. *English Grammar*.

Written by an American author, contemporary of Webster; date uncertain. Mentioned in Education in New Hampshire, Am. Ann. of Ed. and Ins., 1833, 435.

1799. Stanford, Daniel. *A Short but Comprehensive English Grammar*. 18°.

2d ed. in 1800, 4th in 1807. "Fell into the traces of Murray." Wallis, Com. Sch. J., 12, 203. Brown says 1st ed. 1807, 96 pp., 12°.

1800. Woodbridge, William. *Plain and Concise Grammar*.

George A. Plimpton, Hist. of Ed. in N. J., 51.

1801. Gurney, David. *English Grammar*. Boston, 18°.

2d ed., 1808, Brown. Barnard calls it "Columbian Accidence."

1802. Cochran, Peter. *An English Grammar*. Boston, 71 pp., 18°.

## APPENDIX B.

### A COMPARISON OF THE ENGLISH PROGRAMS OF TURNBULL AND FRANKLIN.

#### TURNBULL.

(From *Observations on Liberal Education* (1742), 1762, ed., 4-9.)

#### FRANKLIN.

(*Smyth, Writings of Benj. Franklin*. II, 391 et seq.)

#### GRAMMAR.

"One exercise should be daily to write a page of English, and after that to examine every word by the grammar rules, and every sentence they have composed, to oblige them to give an account of the English syntax and construction."

"The English Language might be taught by Grammar."

#### COMPOSITION.

"... who thinks it worth while learning to write this (mother tongue)? Every one is suffered to form his own stile by chance; to imitate the first wretched model which falls in his way, before he knows what is faulty, or can relish the beauties of a just simplicity. ... Right education would have ... taught them to acquire habits of writing their own language easily under right direction; and this would have been useful to them as long as they lived."

"The Stiles principally to be cultivated being the clear and the concise. ... To form their Stile, they should be put on Writing Letters to each other, making Abstracts of what they read; or writing the same Things in their own Words; telling or writing Stories lately read, in their own Expressions. All to be revis'd and corrected by the Tutor."

#### LITERATURE.

"I need not advise you to give them a taste of our best poets."

"Some of our best Writers, as Tilletson, Addison, Pope, Algernon Sidney, Cato's letters, etc., should be classicks."

#### SPEAKING.

"... obliging them to speak every day their unwritten thought on any subject in English. Let them read an Oration on Tully or Livy ... then shut the book, and speak the sense of it extempore."

"Repeating Speeches, delivering Orations."



## DECLAMATION.

"Make them read aloud gracefully, an accomplishment that many men . . . cannot perform, because they are either unexperienced or bashful."

"To form their Pronunciation they may be put on Declamations. . . .

Reading should also be taught and pronouncing, properly, distincting, emphatically."

## FOR PROFESSIONS.

"Where is *English* taught at present? Who thinks of it of use to study correctly the language which he is to use in daily life? . . . It is in this that nobility and gentry defend their country; . . . It is in this that lawyers plead, the divines instruct, and all ranks of people write their letters and transact all their affairs."

"It is therefore propos'd that they learn those Things that are likely to be *most useful*. . . . Regard being had to the several Professions for which they are intended."

Between the passages in Turnbull and in the proposals of Franklin there is one striking dissimilarity. The former is outspoken in his condemnation of Latin as a medium of universal education. Franklin, who in other places voices the same sentiment, in his proposals contents himself merely with strong emphasis upon English as the "most useful" and "most natural." Smyth, *op. cit.*, 386-96. The explanation is simple: Turnbull was writing a book frankly to substitute the vernacular and the realities for classical instruction, while Franklin was propounding the program for a school he wished to establish. The former could afford to denounce the opposition, the latter could not. As always the practical man is cautious, conciliatory, compromising. The student of Franklin's early advocacy of the mother tongue is frequently struck by the extreme diplomacy with which he sought to bring it forward.



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DEPARTMENT OF THE INTERIOR  
U.S., BUREAU OF EDUCATION

BULLETIN, 1921, No. 13

# The Housing and Equipment of Kindergartens



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1921

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## LETTER OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION, ,  
*Washington, D. C., September 17, 1920.*

SIR: In the last 8 or 10 years there has been unusual progress in the establishment of kindergartens in most of our cities and States, but still the kindergarten is a phase of school work less known than the work of the grades in the elementary schools. Many school officers and school architects lack information as to the character of rooms and buildings best suited for the use of the kindergarten, and many of the kindergartners have need for more complete information in regard to modern kindergarten equipment. To supply these needs I have had prepared a manuscript on the Housing and Equipment of Kindergartens, in which descriptions and illustrations are given of some kindergarten rooms and buildings of the best types and lists of the equipment used in some of the best-known kindergartens. I am transmitting the manuscript for publication as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

THE SECRETARY OF THE INTERIOR.





# THE HOUSING AND EQUIPMENT OF KINDERGARTENS.

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[This bulletin was prepared with the cooperation of a committee of the International Kindergarten Union, Miss Grace L. Brown being chairman, and with the help of Miss Grace M. Janney.]

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## PART I.

The kindergartner who is responsible for the housing of a kindergarten may have one of three problems to solve. She may be given a room originally built for some other purpose, in which case her problem is that of adaptation. She may be consulted as to the features she would like incorporated in a large school building where she must accept the limitations necessary to the architectural unity of the building. Or she may have the pleasure and the responsibility of planning a building where only the needs of the younger children in a school are to be considered.

### THE KINDERGARTEN IN THE LARGE SCHOOL.

If the kindergarten is to be in especially planned rooms in a large school, the rooms should have the morning sun and be large enough to admit of the free playing of varied and active games. There should also be a space where construction work may be kept for a period of days if necessary, until the project of which it is a part shall be completed. Dr. Dresslar, in his book on "American School-houses," gives from 24 to 25 feet wide by from 32 to 33 feet long and from  $12\frac{1}{2}$  to 13 feet high as the ideal size for a schoolroom. He states that the width of a schoolroom, where unilateral lighting is used, should never exceed twice the distance from the floor to the top of the windows. In the kindergarten, where the position of the furniture can be easily changed to suit the lighting conditions, and where a great deal of room is needed for games and rhythmic exercises, one room of the size he gives is not sufficient for a kindergarten of 50 children.

In the Marshall School, Dorchester, Mass., the kindergarten occupies three rooms. One, the play room, is 35 feet by 35 feet 8 inches and has an entrance into the school yard. At one end are two classrooms 17 feet 9 inches by 19 feet 9 inches each, which open into the large room by wide folding doors.

The kindergarten at the John D. Philbrick School, Boston, Mass., has a room 40 feet long by 20 feet 6 inches wide, which can be divided into two rooms for the work period by folding doors. Miss Aborn, the supervisor of kindergartens in Boston, suggests that 5 feet added to the width of the room would be a great improvement.

The report of the First District California Congress of Mothers and Parent-Teacher Associations gives 35 feet by 55 feet or 40 feet by 60 feet with a ceiling from 10 to 12 feet high as the proper size for a one-room kindergarten.

No room should be used even for a playroom which is more than 2 feet below ground.

#### THE LOCATION.

If a house is to be built for the use of the kindergarten, its location is important. There should be plenty of air and sunshine and restful quiet. There should be ample ground for gardens and the keeping of pets, which might include a mother hen and her chicks and a mother rabbit and her babies.

Dr. Dresslar, in making an especial plea for the building of schoolhouses in quiet places, says: "Most children who live in the larger cities are bathed in a constant turmoil of noise both day and night, and as a result their nervous systems are levied upon incessantly to no purpose at all."

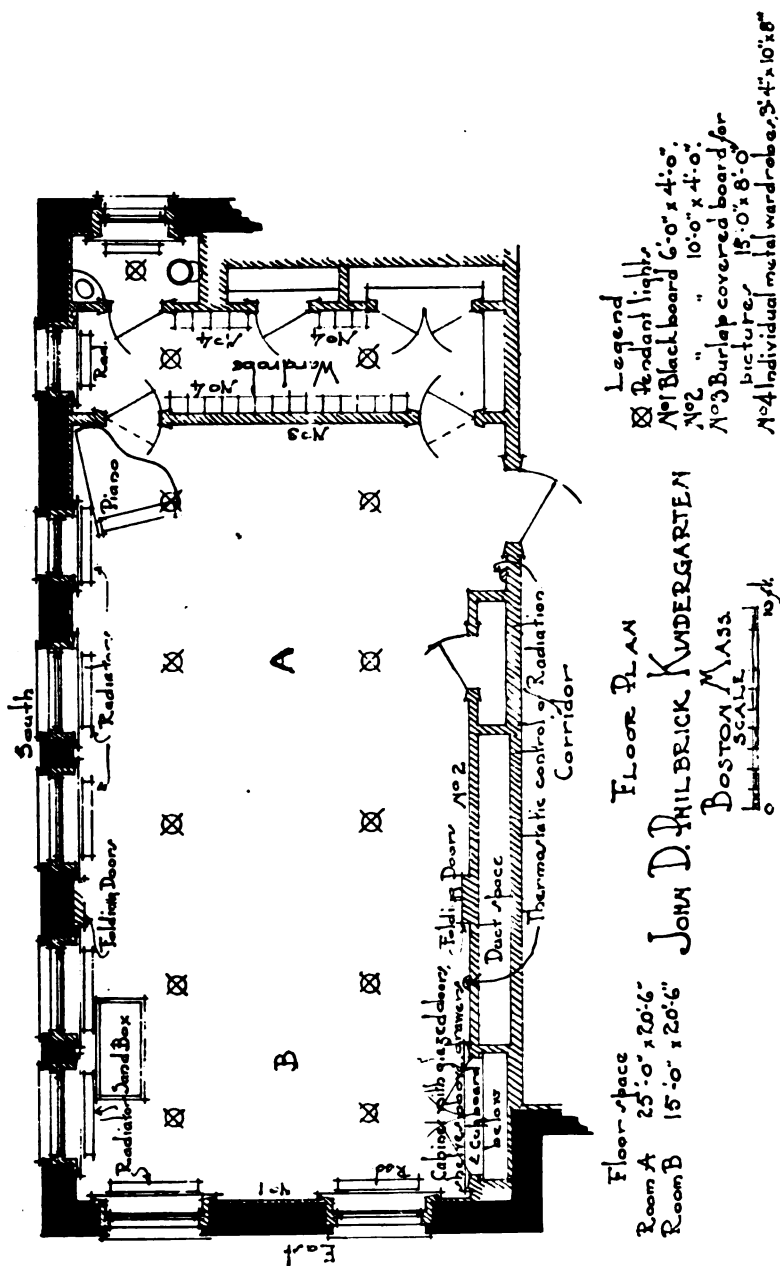
He advocates the building of schoolhouses in quiet places and furnishing the children with free transportation, as is done by means of school vans in rural districts.

#### THE HOUSE PLAN.

If the kindergarten building is to be planned for use in a northern climate, the kindergarten at Wellesley College is well worth studying. The location is ideal. The building has a simple and dignified exterior and a charming interior. The kindergarten rooms are at the back and long windows open directly into the garden. The one criticism that might be made of the Wellesley school is that the basement playrooms are too far underground.

Whatever the climate, all possible out-of-door work should be encouraged. Of course, the greatest possibilities for regular outdoor kindergartens will be found in the South and Southwest. Edward Hyatt, formerly superintendent of public instruction for California, has some very interesting plans, pictures, and descriptions of open-air schools and one-story schools built in the mission style of architecture, in a report on "School Architecture in California." The picture on page 61 of this book shows an attractive open-air classroom at San Bernardino. The window arrangement makes it possible to have an open-air classroom in fair weather or to have protection in foul weather.

The First District California Congress of Mothers and Parent-Teacher Associations have issued from Los Angeles a very compre-



hensive report on the proper housing and equipment of kindergartens. The committee states that it will forward, on request, plans of the

different types of buildings described. Their report is well balanced and full of valuable suggestions.

Whenever possible the kindergarten building should be of fire-proof materials. In the South and Southwest, the mission style of architecture, built with thick, solid walls of concrete and red earthen tiles, makes an attractive building. The Francis W. Parker School, San Diego, Calif., is constructed of frame, finished on the outside with cream stucco and red mission tiles and on the inside with tan walls.

#### HEIGHT OF CEILINGS.

It should be remembered that rooms with high ceilings are more expensive to build, harder to heat, and are apt to have troublesome echoes. Ceilings should, however, be high enough to admit of the proper window area for the lighting of the rooms. For that purpose 12½ feet from ceiling to floor is usually sufficient.

#### THE FLOORS.

In fireproof buildings a single floor is sufficient. but in other buildings great care should be taken to insist on having double floors, with a layer between them of some material impervious to air and deadening to sound. Tarred paper is good to keep out the air, and an asbestos board or quilt will deaden sound.

#### LIGHT.

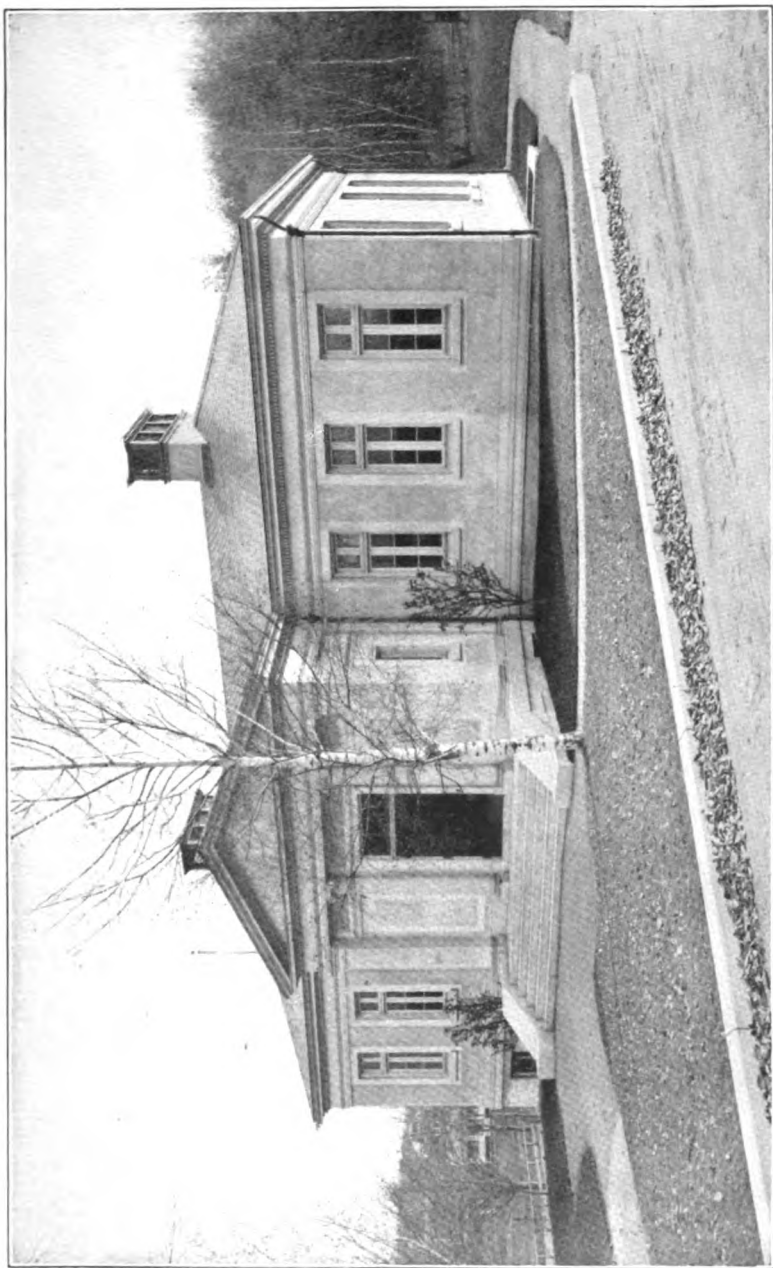
The amount of light necessary for the schoolroom varies with the part of the country in which it is situated. Dr. Dresslar states that in northern countries, with short days, windows equal to one-fourth of the floor area are often required, while in the sunny parts of the Southwest one-sixth is sufficient.

The windows in the kindergarten rooms should be low. They should be placed as close together as safety of construction will permit. If iron mullions are used they will make more glass surface possible with stronger construction. The window arrangement used in Public School No. 37, plate 154, in Dr. Dresslar's "American Schoolhouses," is very pleasing.

#### HEATING.

A most important place should be given the heating system of the school building. If the heating apparatus must be in the kindergarten room, a jacketed stove correctly placed is the most effective means of warming the room. If a furnace for the whole building is to be used, experts on heating systems must be consulted.

Certain points to keep in mind are that all hot-air furnaces should be supplied with some means of moistening the air before it is intro-



KINDERGARTEN BUILDING, WELLESLEY COLLEGE.



duced into the schoolroom, and that a system of thermostats should regulate the heat in the rooms automatically.

Dr. Dresslar says that children of primary age need 2,000 cubic feet of air per pupil each hour. He calculates that, although each child only breathes 18 cubic feet, the poisons of the air exhaled will vitiate more than 100 times as much. Because so much fresh air is required in a schoolroom, a furnace which is satisfactory in the ordinary home will not be satisfactory for a school. Provision must be made in school heating to install a system of ducts for fresh air and foul air and a motive power to force in the fresh, warm air and force out the impure, vitiated air.

Some arrangement should be made, in planning for such a system, to provide for foot warmers to be used in cold weather.

#### SCHOOL BATHS.

In progressive school systems, school baths have been tried and found to be a valuable asset. In some places it is required that each pupil take one bath a week at school or bring a written statement from home that he has had a bath. Physiologists and psychologists have long taught the value of cleanliness to bodily and mental strength. This means of minimizing sickness, restlessness, and inattention is too often neglected in school plans.

#### THE WALLS OF THE ROOMS.

Science has taught us that all bright colors lose their intensity when seen at a distance; the intervening atmosphere grays them. Therefore, to make the walls of a room appear to recede and give an air of spaciousness to the room, the color of the walls should be neutral rather than intense. In sunny rooms gray-green is good. In dark rooms light brown and buff tend to make the room seem lighter, while the walls retain their value as a background.

The color chosen should be darkest near the floor and lighter as it nears the ceiling. For instance, with woodwork from the floor to the line of the blackboard and with gray-green side walls, there should be a ceiling of very light gray-green or cream, which should be dropped to the picture molding.

If the color of the woodwork is in violent contrast to the color of the walls, its lines will stand out so prominently that the room will seem much smaller. The woodwork should harmonize with the color of the walls, and it should be dull and unobtrusive in finish.

In choosing the tints for walls and woodwork consider the rooms in their most unfavorable circumstance, so that there will be no temptation to select colors which are too dark.

### CURTAINS.

Window curtains should be of plain, thin material, and should be hung straight to conform with the structural lines of the room. They should be used simply to soften the lines of the window frames and should not be allowed to obstruct the entrance of light and air.

### SHADES.

Window shades of a neutral tint, harmonizing with the color scheme of the rooms, should be used. There should be two separate shades for each window, both fastened about two-fifths of the height of the window. The upper shade should pull down and the lower shade should pull up. Special brackets for these shades can be obtained. The shades should extend over each side of the window frame to keep out the streaks of sunlight that are often troublesome if the shades are too narrow.

### PICTURES.

The pictures to be chosen for the kindergarten room should not only be selected for their artistic merit, but also for their value as fine interpretations of the world and its activities from the child's standpoint. In the kindergarten pictures are used in relation to the development of the subject matter of the program. They fall into three general groups, namely, those with a real art value, which should have a more permanent place on the walls of the room; those which illustrate specific subjects accurately and may be temporarily displayed; and those which are suitable for the making of scrap books. A valuable aid in the selection of kindergarten pictures will be found in the "Report of the Graphic Arts Committee," contained in the "Report of the Twenty-fourth Annual Meeting of the International Kindergarten Union," at Boston, Mass.

All the pictures should be framed simply. Due consideration should be given to the picture itself, to the wall upon which it is to hang, and to the other pictures in the room.

Pictures should be hung perfectly flat against the wall and low enough for the children to see. If the rules of the school decree that no nail holes may be made in the walls, each picture should be hung by two parallel cords of the color of the walls and as unobtrusive as possible.

Thought should be given to the balance of the room as a whole in the grouping of pictures and placing of furniture.

### BULLETIN BOARDS.

Bulletin boards should be provided for the exhibition of children's work and the pictures and other objects which illustrate group interests but do not contain sufficient art value to become a perma-



nent part of the room. Satisfactory bulletin boards can be made by having large pieces of cork composition framed with a flat wood frame. The shape and size of such bulletin boards will, of course, depend upon the proportions of the spaces on the walls of each individual room.

#### VASES FOR FLOWERS.

The vases for flowers should be simple in material, beautiful in line, and restrained in color. Japanese flower holders will be found very useful in the effective arrangements of bouquets.

#### THE AQUARIUM.

The aquarium should be as large and as strongly constructed as is possible. If frogs are to live there as well as the usual fish and snails, a wire netting should be provided to fit over the top of the aquarium.

The report of the "Program and Details of Construction and Equipment for Grade Schools," prepared by C. L. Woolridge, superintendent of buildings in the public schools of Pittsburgh, Pa. (published in 1914), contains the specifications for the making of a practical aquarium. The tank is 2 feet long by 12 inches wide by 12 inches high. The sides are made of one-fourth-inch plate glass channeled into slate at the bottom and finished with lead corners and coping. The aquarium is built on a table-like stand 1 foot 6 inches high.

#### CLAY JARS.

If a large amount of clay is kept, the best place for it is the basement, but a quantity sufficient for at least one day's use should be kept in a large crock near enough for the children to reach easily so that they may help themselves.

#### BLACKBOARDS.

The blackboards should be low, about 2 feet from the floor. As blackboards absorb a great deal of light, only enough should be left in the room to meet the actual needs of the kindergarten. A dark green board is often preferable to black. Blackboards should never be placed on the same side of the room as the windows.

#### CUPBOARDS.

Cupboard space should be carefully planned. The cupboards should be low enough for the children to reach so that they may get their own materials and keep the shelves in order. It would be valuable for each child to have a compartment in such cupboards where he could keep his own working materials and be held responsible for both the condition of his materials and his compartment.

These cupboards can be built in the rooms. If they are low and finished at the top with a broad shelf, they can be made a very attractive and decorative feature of the room. Wooden doors will protect the materials on the shelves. The broad shelf will make an excellent place for the aquarium, jars of flowers, and the various objects of interest belonging in kindergarten rooms.

If compartments for use by individual children are to be planned, care should be taken to make each space large enough to be of practical use. They should at least be long enough to hold a piece of construction paper and high enough to accommodate small pieces of unfinished construction work. Such spaces should be not less than 9 inches high by 12 inches deep by 15 inches long.

#### CHESTS.

Chests with hinged covers should be provided for the storing of floor blocks and miscellaneous construction materials. Such chests can serve as seats if properly placed.

Miss Mary Pennell, of Kansas City, Mo., gives the following proportions for the building of such a chest: Fifty-two inches long by 20 inches high by 20 inches wide. The height of 20 inches is to include the height of the casters.

#### FLOOR COVERING.

A floor covering of a heavy cork composition, such as is used in the kindergarten at Wellesley College, or the cork tiles used at Downers Grove, Ill., are ideal ones. They are easily cleaned, deaden sound, and soften tumbles.

#### TOILET ROOMS.

A most important subject for the consideration of the kindergarten is that of toilet facilities for the children. Kindergarten children should have access to drinking fountains, stationary wash basins, and toilet seats of the proper size so near their rooms as to be under the constant supervision of the teachers. One toilet seat for boys and one for girls should be provided. While the toilet rooms should be airy, warm, and well lighted, the plan for their ventilation must be separate from that of the schoolroom. The foul air from toilet rooms should never be allowed to enter a schoolroom. In new buildings these requirements are almost always included in the architect's plans, and usually in old buildings a persistent seeker will find a place which can be converted, more or less satisfactorily, to this use. A plentiful supply of liquid soap and paper towels should be furnished.

#### CLOAKROOM.

Another important point is the planning of the cloakroom space. Few people realize how great is the possibility of the spread of con-

The floor plan is for the Wellesley Kindergarten, located in Wellesley, Mass. The building has an overall width of 36'-8" and a depth of 18'-8". The layout includes three Class Rooms: one at the top (19'-0" x 16'-3") with a circular area (25'-0" x 27'-6") and a fireplace; one at the bottom left (19'-0" x 16'-3") with a fireplace; and one at the bottom right (25'-0" x 27'-6") with a fireplace. A central Corridor (25'-0" x 27'-6") connects the rooms and contains a continuous bench, coat hooks, and a door to the stairs. The Office is located at the top right. Various fixtures are labeled, including cabinets, ducts, blackboards, and a drinking fountain. The plan also shows a staircase and a door to the exterior.

**FLOOR PLAN**  
**WELLESLEY KINDERGARTEN**  
**WELLESLEY, MASS.**  
**SCALE**  
 1" = 1'-0"

Some plan for children's gardens should be made. If possible, each child should have his own plot in the school garden or a near-by vacant lot. If that is impossible, large shallow pans of zinc could be made to fit the window sills or shelves in front of the windows. Each child could then have his own flower pot in which to grow his own

plant. The growing plants could be transferred to a house garden or the school window box as soon as they outgrow the pot. More seeds could be planted so that in time one pot could furnish for the child quite a varied garden experience.

Roof gardens, furnished with large boxes, can sometimes be planned in cities where lack of space makes a real garden impossible.

#### OUTDOOR PLAYGROUND.

There should be an outdoor playground in connection with each kindergarten. The equipment list of the report of the First District California Congress of Mothers and Parent-Teacher Associations includes an adequate list of playground apparatus and an excellent detailed description of it.

#### PART II.

The modification in kindergarten practice which has taken place in recent years is illustrated by a statement in the Bureau of Education bulletin entitled "The Kindergarten Curriculum" (Bulletin, 1919, No. 16), which says:

"Educators are to-day seeking to develop in children initiative and reflective thinking. The first prerequisite of productive thinking is a problem which seems to the child real and worthy of solution."

The foregoing conception of education calls for changes in some of the traditional kindergarten materials and for the addition of other supplementary materials. In addition to this educational standard for the measurement of the worth of working materials, there must be added the health standard which rejects as harmful those materials which are so small and exacting as to overstrain nerves and small muscles.

In June, 1919, questionnaires were sent to groups of experienced teachers asking for information as to their present equipment and the kind of equipment they desired for their kindergartens. A summary made from these questionnaires shows that certain tendencies are widespread. Of the number now having small blocks in their equipment, less than 10 per cent would include them in an equipment list for a modern kindergarten. On the other hand, the desire for some form of large floor blocks and enlarged fifth and sixth gifts is practically universal. A very small percentage of teachers list such materials as small tablets, small sticks, small rings, paper weaving, parquetry, straws, and chain papers, while many teachers select such materials as large sticks, woodworking materials, industrial sewing, and weaving. The desire for toys and outdoor playground apparatus is practically universal.

The kindergarten equipment lists which follow are merely suggestive, and it is expected that selection will be made according to the special needs in various localities.

## FURNITURE.

*Tables.*—Tables made by manufacturers of kindergarten materials are expensive. It would be much cheaper and quite as satisfactory to have tables made by local carpenters or to adopt ordinary kitchen tables by shortening the legs. The modern development of kindergarten work results in the division of the kindergarten into smaller and more spontaneous groups and in the use of small tables seating two or three children. It also entirely eliminates the need for the tables checked with 1-inch squares. The First District California Congress of Mothers and Parent-Teacher Associations describe such a carpenter-made table in a report published by them in 1917. The proportions they use are 20 by 36 inches for the top and 20 inches high for use with chairs 12 inches high, or 18 inches high for use with chairs 10 inches high. A similarly made table with a square top 30 by 30 inches will be found to be satisfactory. One such table should be allowed for two children.

*Chairs.*—The chairs for the children should be of a type which meets the requirements set by hygienic experts. They should be provided in two sizes, 10 and 12 inches high, and should be finished with rubber tips.

Larger chairs should be included in the equipment for teachers and visitors.

*Sand table.*—A practical sand table can also be made by a local carpenter. A convenient size for the tray to hold the sand is 3 feet by 5 feet and 4 inches deep. This tray should be lined with zinc and fastened to four strong legs finished with castors. The whole structure should be not more than 24 inches from the floor to the top of the tray.

*Musical instruments.*—A kindergarten equipment should include a piano or phonograph or both. If only one instrument can be furnished, the piano is better, because it can be quickly adapted to meet the musical needs of the child. While there are distinct limitations in the adaptation of the phonograph to kindergarten uses, excellent records for music appreciation, marches, and rhythms can be obtained, as well as a few kindergarten songs and games. The phonograph will be of great value in the school where the teacher is without musical ability, and in the school where one teacher is required to be musician and director at the same time.

Toy musical instruments, such as drums, cymbals, tambourines, bells, triangles, etc., should be provided for the use of the children. Much valuable rhythm and tone work can be done with such a collection.

*Music books.*—The Bureau of Education bulletin entitled "The Kindergarten Curriculum" (Bulletin, 1919, No. 16), prepared by a

committee of the International Kindergarten Union, contains a chapter on "Music in the Kindergarten," with a comprehensive list of music books and songs.

#### DIFFERENT TYPES OF LISTS.

Three types of lists are given in this bulletin, which are intended to meet the following needs: (1) Where the expenditure must be limited; (2) where the expenditure will allow for an adequate equipment; (3) where the work is experimental in character, and a large variety of material is called for.

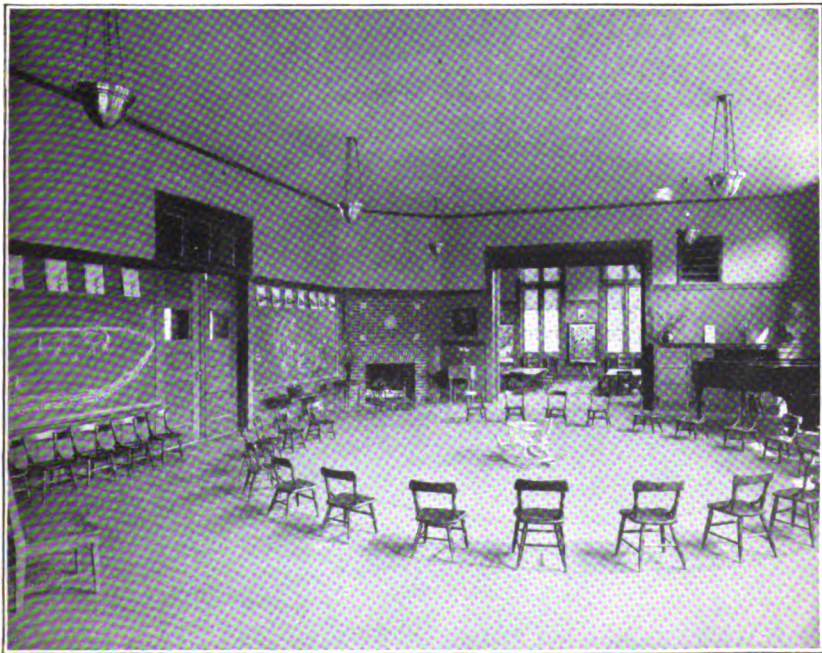
Even in a minimum equipment list the selection of materials will vary with conditions. In a kindergarten that is located in the town or country, or in a city kindergarten that is near a large park, the children will be able to spend a part of every morning out of doors, and will also have an opportunity to collect nature material. These experiences are more valuable than working or playing with perfected materials. But when a kindergarten is located in a crowded city, and nature experiences are more limited, it is necessary to provide a more complete indoor equipment. An adequate equipment for the right development of children from 4 to 6 years of age should be the aim, and not economy at the expense of the younger children in the school system. It is possible to practice economy in such a list as "A Minimum Equipment," and at the same time provide opportunity for the right development of the children. The materials that are absolutely essential for the right kind of kindergarten work are: Clay and sand, building blocks, paper, paste, scissors, and colored crayons. Permanent material should be of the best quality. For example, the blocks should be cut accurately, and, if possible, be of hard wood. In equipping a kindergarten it is better to begin with small quantities of the best quality of permanent material and to build up the equipment from year to year. Cheap material that will have to be renewed or that will not enable children to secure the right kind of results in their work, such as uneven blocks, is poor economy. Cheap scissors are a waste of money.

But economy may be practiced with material which children use for experimentation, such as paper, and cheaper paper may be used in the place of colored paper cut in prepared shapes.

In "An Adequate Equipment," the newer materials are listed that are being incorporated in the modern kindergarten. In such a kindergarten as that of the Horace Mann School of Teachers' College, Columbia University, a wealth of material is needed because of the experimental character of the work. Here the needs of the child are being studied in relation to many kinds of stimuli with a view to selecting those that are best suited to children of kindergarten age.



**A. FRANCIS W. PARKER SCHOOL OF SAN DIEGO, CALIF.**



**B. KINDERGARTEN ROOM, WELLESLEY COLLEGE.**

Note the low cupboards, the excellent type of children's chairs, and the low blackboards.





A. FRANCIS W. PARKER SCHOOL OF SAN DIEGO, CALIF.

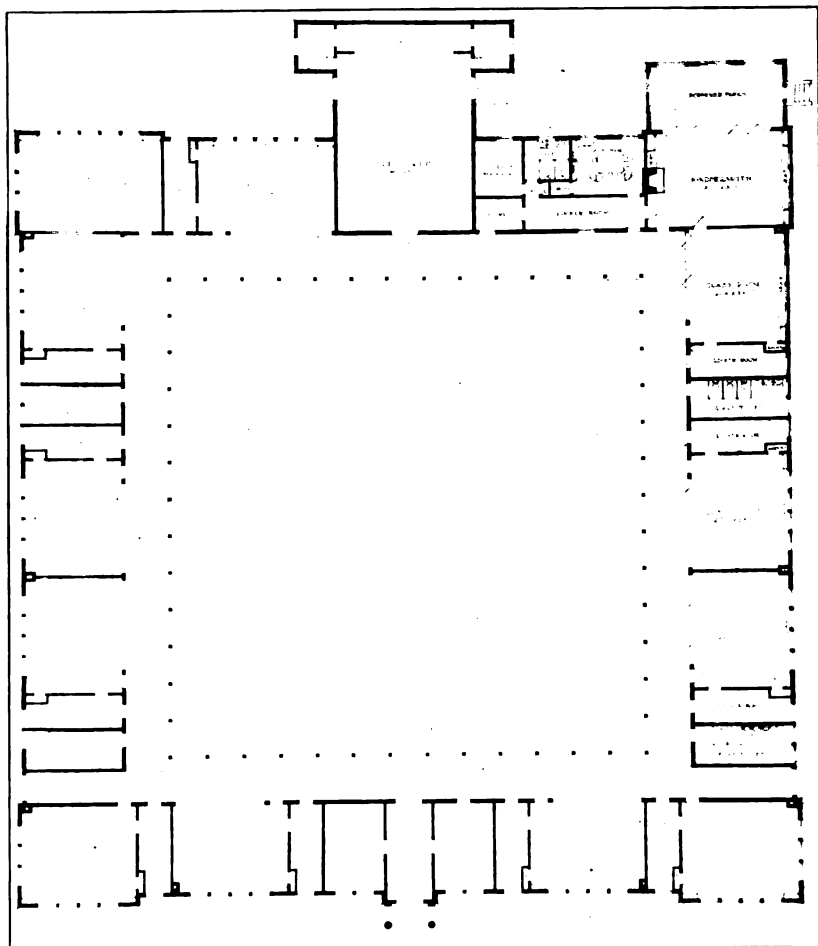


B. KINDERGARTEN DIVISION OF FRANCIS W. PARKER SCHOOL, SAN DIEGO, CALIF.





KINDERGARTEN, STATE NORMAL SCHOOL, SUPERIOR, WIS.



PLAN OF THE FRANCIS W. PARKER SCHOOL, SAN DIEGO, CALIF.

This equipment is in no sense intended for the kindergarten of the average school.

**A MINIMUM EQUIPMENT LIST FOR A KINDERGARTEN OF 30 CHILDREN.**

Because lack of financial support is often an obstacle to the establishment and maintenance of kindergarten classes, the minimum equipment list carries the suggestion that much of the permanent equipment can be made at a considerably smaller cost by the students of local manual training schools or by local carpenters. This list also includes prices obtained from recent catalogues. These prices are subject to change, and, therefore, it has not been thought practical to include prices in the other lists.

The pictures and songbooks required will vary with the type of work planned by the teacher of each class. If no unnecessary material is to be bought, the teacher should be consulted before such lists are completed. Modern additions to the group of pictures illustrating specific subjects will be found in "The Farm Book" and "The Railroad Book," by E. Boyd Smith, published by the Houghton Mifflin Co., and in "The Modern Trade Pictures," published by Milton Bradley Co.

Music books, which contain short songs planned for small children and which should be included in kindergarten minimum equipment lists, are:

1. **First-Year Music**—Hollis Dann. American Book Co., New York City.
2. **Child Land in Song and Rhythm**—Jones-Barbour. Arthur Schmidt, New York City.
3. **Mother Goose Melodies**—Elliott. McLaughlin Bros., New York City; or **Mother Goose Songs**—Ethel Crowinshield. Milton Bradley Co., Springfield, Mass.
4. **Song Primer (teacher's edition)**—Bentley. A. S. Barnes Co., New York City.
5. **Small Songs for Small Singers (edition without pictures)**—Neidlinger. G. Schirmer, New York City.
6. **Children's Old and New Singing Games**—Hofer.

Suggested additions to a minimum list of music books would include:

1. **Song Stories for the Kindergarten**—Hill. Clayton F. Summy, Chicago, Ill.
2. **Songs for the Child's World No. 1**—Gaynor. Milton Bradley Co., Springfield, Mass.

*First Gift.*—Worsted balls of each of the six spectrum colors can be easily knitted or chocheted and filled with some soft substance. As these balls are to be used as color standards for the children, care should be taken in the selection of pure colors.

*Building Blocks.*—It is not necessary to include both enlarged Fifth and Sixth Gifts and floor blocks in a minimum equipment list, but it must be remembered that they do not fill identical needs.

The floor blocks are primarily intended for the construction of large buildings and for the bridging of wide spaces, while the Fifth and Sixth Gifts are used for the creation of more varied and perfect forms, as illustrated in the picture of the Superior State Normal School Kindergarten. Sets of blocks of different types, as well as the enlarged Fifth and Sixth Gifts, may be purchased from manufacturers of standardized materials, but it is more economical to have such blocks made by local carpenters or manual training schools.

The set of floor blocks, planned by the First District California Congress of Mothers and Parent-Teacher Associations, is as follows: Forty-eight blocks, 36 by 3 by  $1\frac{1}{8}$  inches; 20 blocks, 24 by 3 by  $1\frac{1}{8}$  inches; 36 blocks, 12 by 3 by  $1\frac{1}{8}$  inches; 100 blocks, 6 by 3 by  $1\frac{1}{8}$  inches; 50 blocks, 3 by 3 by  $1\frac{1}{8}$  inches; 50 blocks, 6 by 6 by  $1\frac{1}{8}$  inches cut diagonally.

Specifications for a set of blocks made from thinner wood and therefore cheaper in price are furnished by Mrs. Mary Barker, of Worcester, Mass.: Forty-eight blocks,  $31\frac{1}{2}$  by  $2\frac{1}{2}$  by  $\frac{7}{8}$  inches; 40 blocks, 21 by  $2\frac{1}{2}$  by  $\frac{7}{8}$  inches; 72 blocks,  $10\frac{1}{2}$  by  $2\frac{1}{2}$  by  $\frac{7}{8}$  inches; 200 blocks,  $5\frac{1}{2}$  by  $2\frac{1}{2}$  by  $\frac{7}{8}$  inches.

Miss Alice Temple, in her Survey of the Kindergartens of Richmond, Ind., gives still another good plan for a set of floor blocks. Her plan includes 6-inch cubes, a form not used in the already listed specifications: One hundred and fifty blocks, 3 by 6 by 12 inches; 100 blocks, 3 by 6 by 6 inches; 50 blocks, 3 by 3 by 12 inches; 25 blocks, 6 by 6 by 6 inches; 25 blocks, 6 by 6 by 6 inches divided in half diagonally; 40 blocks, 3 by 1 by 10 inches; 40 blocks, 3 by 1 by 24 inches; 20 blocks, 3 by 1 by 30 inches; 20 blocks, 3 by 1 by 36 inches; 12 blocks, 72 by 1 by 10 inches.

Miss Mary Pennell, of Kansas City, Mo., gives a plan for making floor blocks which should supply about five kindergartens of 30 children each: Five hundred blocks, 4 by 2 by 1 inches; 650 blocks, 8 by 2 by 1 inches; 50 blocks, 2 by 2 by 1 inches; 250 blocks, 16 by 2 by 1 inches; 50 blocks, 2 by 2 by 2 inches cut diagonally once; 150 blocks, 36 by 1 by  $\frac{1}{4}$  inches; 150 blocks, 18 by 1 by  $\frac{1}{4}$  inches; 150 blocks, 36 by 2 by  $\frac{1}{4}$  inches.

*Fifth Gift.*—Twenty-one cubes, 2 by 2 by 2 inches; 3 more cubes cut diagonally once; 3 more cubes cut diagonally twice.

*Sixth Gift.*—Eighteen oblong prisms, 1 by 2 by 4 inches; 6 more oblong prisms cut in half lengthwise, 4 by 1 by 1 inches; 6 more oblong prisms cut in half crosswise, 2 by 2 by 1 inches.

*Paper.*—Construction paper: Size 9 by 12 inches, suitable for cardboard construction, mounting pictures, and for certain types of paper cutting. Each package to contain 100 sheets: Two packages of dark brown; one package of gray; one package of dark blue; two packages of light blue; two packages of green; one package assorted.

**Bogus paper:** Size 9 by 12 inches. This paper is similar in weight to the construction paper and can be used for the same purposes except where color is important. It comes in gray only and is much cheaper than the construction paper. It can be used for experimental work. Each package contains 250 sheets: Four packages.

**Drawing paper:** Size 9 by 12 inches. White drawing paper is much more expensive than the manila drawing paper, and for experimental work the manila paper is excellent: One ream white; two reams manila.

**Paper for folding and cutting:** Papers listed by Milton Bradley as "Tonal Papers" and by Prang as "Enginex," put up in packages of 100 sheets each, with assorted colors in each package: Twelve packages, 5 by 5 inches square; 12 packages, 9 by 12 inches oblong.

**Gold and silver paper for Christmas-tree decorations:** Four sheets silver, 20 by 24 inches; two sheets gold, 20 by 24 inches.

**Weaving materials.**—In a minimum equipment list, weaving need not be included. If weaving is included it should be of the industrial type which is done on looms. Wooden looms may be made locally. Weaving cards,  $5\frac{1}{2}$  by 7 inches, made of heavy cardboard, with 13 holes at top and bottom, are very satisfactory, or cards with slits at top and bottom may be used. Practical weaving materials are cotton jute for the warp and cotton roving for the woof. The roving may be procured in a number of attractive colors.

**Sewing materials.**—It is also unnecessary to include sewing in a minimum equipment list. If it is desired to include card sewing, small square cards, large square cards, and oblong cards, similar to Nos. 2, 4, and 6 in the Lanzettel Series, listed by Milton Bradley Co., should furnish sufficient variety. Sewing of a decorative nature, done on coarse materials such as the "Stencillex" listed by Prang, may be substituted for the card sewing. Cotton cloth, large needles, and coarse thread may be provided for making dolls' clothes, etc.

**Stringing materials.**—Hailman beads, 1 box containing 1,000 beads with assorted forms and colors. Two dozen shoe laces.

**Enlarged sticks (uncolored).**—One hundred sticks, 1 inch; 100 sticks, 2 inches; 100 sticks, 4 inches; 100 sticks, 6 inches; 100 sticks, 10 inches.

**Paints and crayons.**—A box of crayons containing six colors and brown and black should be provided for each child, so that he may have ample opportunity for experimentation and representation with color. If funds permit, 15 paint boxes, a paint brush for each child, and 15 small pans for water should be added to the equipment. Each box should contain six colors, brown and black.

**Clay.**—Twenty-five pounds of clay and a large jar to keep it in. Clay may be obtained, in powder form, in packages of 5 pounds each.

It can then be mixed with water as needed and will be found very satisfactory.

*Paste.*—Five pints of library paste. Paste may be obtained in powder form and should be most satisfactory in communities where transportation is difficult. Fifteen small brushes or two bundles of soft wood slats  $4\frac{1}{2}$  inches long should be provided for pasting.

*Scissors.*—Fifteen pairs, blunt pointed, 5 inches.

*White chalk.*—One gross.

*Paper fasteners.*—Three boxes.

*Sand.*—One barrel.

*Glass prism.*—One.

*Paper cutter.*—One, with 15-inch blade.

*Punch.*—One.

*American flags.*—Thirty cotton (8 by 14 inches).

*Miscellaneous materials.*—The following materials should have a place in each kindergarten, but the amounts to be provided vary so with the individual community needs that a list of the different articles is all that can be given: Dust pans and brushes; small brooms; dusters and dish towels; small pitchers and basins; paper towels; soap; paper napkins; garden tools, consisting of small rakes, hoes, trowels, spades, and watering cans; carpenter tools, consisting of hammers, nails of assorted sizes, and small saws; pieces of soft wood.

*Toys.*—The modern type of kindergarten work requires toys that will help carry out the children's play activities. These toys should include dolls and picture books.

*Home materials.*—In addition to the materials ordered for the school valuable use may be made of many things thrown away as trash in every home, store, and school. There are many possibilities of construction in shells, toothpicks, match stems, ribbon bolts, spools, berry boxes, collar buttons, milk-bottle tops, string, worsted, feathers, wooden button molds, cardboard, tablet backs, boxes, pieces of smooth wood, colored papers, pins, flowers, vegetable and furniture catalogues, raffia, pieces of cloth of various colors, etc.

Encouraging children to collect and use materials which might otherwise be wasted for the satisfying of their play needs stimulates observation, encourages thrift, and quickens imagination. It also prevents home play from deteriorating into the passive acceptance of the limitations of ready-made toys and encourages the creation of home-made toys. Best of all, if the use of such materials is encouraged in the school the ease with which they can be found and used at home will be the means of bringing school interests and home interests into a close and vital relationship.

## THE APPROXIMATE COST OF A MINIMUM KINDERGARTEN EQUIPMENT FOR 30 CHILDREN.

The prices quoted in this list are approximate only. While the catalogues consulted quote recent prices, changes are likely to be made at any time. Carpenter-made tables and blocks will be found to be much cheaper than those made by the manufacturers of standardized materials.

*Furniture.*—Thirty Mosher chairs, \$50; 14 tables (4 feet by 16 inches), \$182; 1 sand table, \$25; total, \$207.

*Building blocks.*—Twelve enlarged Fifth Gifts, \$27; 12 enlarged Sixth Gifts, \$27; total, \$54 or—1 set of Hill floor blocks, \$60.

These sums can be made much smaller if all the items except chairs are made locally.

*Paper.*—Construction: One hundred sheets (9 by 12 inches) to each package. One package of gray; two packages of dark brown; one package of dark blue; two packages of light blue; two packages of green; one package of assorted; total (nine packages), \$6.

Bogus: Two hundred and fifty sheets (9 by 12 inches) to each package, four packages, \$2.

Drawing: One ream\* (9 by 12 inches) to each package, two reams manila; one ream white; total (three reams), \$4.

Folding: One hundred sheets (assorted colors) to each package. 12 packages (5 by 5 inches), 12 packages (9 by 12 inches); total, 24 packages, \$8.40.

Gold and silver sheets: 20 by 24 inches, two sheets of gold; four sheets of silver; total, six sheets, 60 cents.

Grand total, \$21.60.

*Stringing materials.*—Hailman beads, 1,000 beads (assorted forms and colors) to each box: One box, \$2; two dozen shoe laces, \$1; total, \$3.

*First Gift.*—One set First Gift, \$2.

*Enlarged sticks (uncolored).*—One hundred, 1 inch; 100, 2 inches; 100, 4 inches; 100, 6 inches; 100, 10 inches; total (500), \$1.20.

*Crayons.*—Thirty boxes (six colors and brown and black), \$4.50.

*Painting materials.*—Fifteen boxes (six colors and brown and black and with brush), \$7.50; 1 dozen No. 7 paint brushes, 80 cents; 15 water cups, 70 cents; total, \$9.

*Clay.*—Twenty-five pounds clay powder, \$2.

*Paste.*—Five pints paste, \$2.80.

*Scissors.*—Fifteen pair, sharp point, 5-inch, \$4.10.

*Chalk.*—One gross white, 40 cents.

*Paper fasteners.*—Three boxes, 90 cents.

*Glass prism.*—One, 50 cents.

*Paper cutter.*—One, 15-inch blade, \$12.

*Punch.*—One, 50 cents.

*Rubber balls.*—Six, 6 inches in diameter, \$5.10.

Total for working materials, except building blocks, \$69.

**AN ADEQUATE EQUIPMENT LIST FOR A KINDERGARTEN OF 30 CHILDREN.**

*Building blocks.*—Fifteen enlarged Fifth Gifts; 15 enlarged Sixth Gifts; 1 set Hill floor blocks; or—1 set floor blocks locally made and 15 enlarged Fifth Gifts; 15 enlarged Sixth Gifts (to be purchased in bulk).

*First Gift.*—One ball for each child.

*Enlarged sticks (uncolored).*—Three hundred sticks, 1 inch; 300 sticks, 2 inches; 200 sticks, 4 inches; 200 sticks, 6 inches; 200 sticks, 10 inches.

*Stringing materials.*—Hailman beads: One box (1,000 beads) assorted colors and forms; one box (1,000 beads) uncolored, assorted forms; one box (500 beads) enlarged, spheres, assorted colors.

*Enlarged peg boards.*—Fifteen peg boards, with pegs.

*Crayons.*—Thirty boxes (six colors and brown and black).

*Painting materials.*—Fifteen paint boxes (six colors and brown and black, with brush); 2 dozen No. 7 paint brushes; 15 water cups; tempora colors (for poster work); or—fresco paints, one set (containing six colors, black, white, and brown); two large brushes.

*Pencils.*—Two dozen (with large lead).

*Blackboard materials.*—One gross white chalk; one set lecturer's colored crayons (for teacher's use); six blackboard erasers.

*Paper.*—Construction: 9 by 12 inches (100 sheets per package)—two packages gray; two packages dark brown; one package dark blue; three packages light blue; three packages green; one package assorted. 12 by 18 inches (100 sheets per package)—one package brown; one package green.

Bogus: 9 by 12 inches (250 sheets per package)—six packages.

Drawing: 9 by 12 inches—2 reams white; 2 reams manila.

Folding and cutting ("Enginex," listed by Prang, or "Tonal," listed by Milton Bradley Co.): Twelve packages, 6 by 6 inches, assorted colors; 12 packages, 6 by 9 inches, assorted colors; 4 packages, 6 by 6 inches, black; 2 packages, 5 by 5 inches, circular, assorted colors.

Gold and silver: Two sheets, gold, 20 by 24 inches; six sheets, silver, 20 by 24 inches.

Practice:  $7\frac{1}{2}$  by 9 inches—two bundles (10 packages each).

Manila wrapping (for poster work): One roll with holder.

*Clay modeling materials.*—Fifty pounds clay; one clay jar; 1 dozen clay modeling tools;  $2\frac{1}{2}$  dozen clay boards, 7 by 9 inches.

*Pasting materials.*—Six pints paste; 2 dozen paste brushes; or four bundles splints,  $4\frac{1}{2}$  inches; 2 dozen paste dishes.



*Weaving materials.*—Six packages industrial weaving mats (listed by Milton Bradley Co.); one Tyndall loom (listed by Milton Bradley Co.); 2 dozen 10-ply weaving cards,  $5\frac{1}{2}$  by 7 inches; cotton roving (for woof—obtainable in 1-pound spools); Two spools dark blue, two spools light blue, two spools brown, two spools green; cotton jute (for warp), 4 pounds.

*Sewing materials.*—Four packages tapestry needles (large). Worsted (Germantown): One-half hank, each of 6 colors, 1 tint and 1 shade with black and white. (There are many cotton substitutes which are much cheaper than worsted; two of them are "Angorina Fluffed Cotton," and "Cottondown Yarn.") Stencillex (listed by Prang): Four packages (25 pieces each), 9 by 12 inches. Thread, coarse: One spool white; 1 spool black. Two papers of coarse needles. Six small thimbles. Cloth of various textures and colors.

*Woodworking materials.*—One workbench; 4 hammers; 1 pound assorted nails; 2 saws; 1 brace and bit; 2 small planes; 1 dozen sheets assorted sandpaper; 1 pint glue; small quantity of paint (green, brown, red); stain (green, brown); varnish or shellac.

Pieces of soft wood (pine or basswood): Three dozen, 5 by  $1\frac{1}{4}$  by  $2\frac{1}{2}$  inches; 3 dozen,  $1\frac{1}{4}$  by  $2\frac{1}{2}$  by  $2\frac{1}{2}$  inches; 3 dozen, 5 by  $4\frac{3}{8}$  by  $\frac{1}{18}$  inch; 3 dozen,  $4\frac{3}{8}$  by  $2\frac{1}{2}$  by  $\frac{1}{18}$  inch. (The proportions of the pieces of wood are provided by Mrs. Mary Barker, of Worcester, Mass.) Odds and ends of soft wood from a carpenter or manual training shop.

*Gardening materials.*—Six watering cans; 6 trowels; 6 small hoes; 1 rake with iron teeth; 1 rake with wooden teeth; 1 small spade.

*Housekeeping materials.*—The amount of housekeeping materials to be provided will differ so much with the needs of the individual school that only the items can be given. They are as follows: Wash-bowls, pitchers, paper towels, paper napkins, cheesecloth dusters, dish towels, dish pans, small brooms, dustpans and brushes, small mops.

*Toys.*—The number of toys to be provided will vary with the type of program planned by the individual teacher, so that only items can be given: Dolls (large and small); doll furniture (cradle, carriage, house, dishes); toy animals; wagon; puzzles; sand toys.

A "*Kinderhaus*" or house screen.—Miss Alice Temple, in the "Survey of the Kindergartens," of Richmond, Ind., gives the following proportions for use in the building of a play screen locally: Four parts of the screen are 5 feet in height and  $32\frac{1}{2}$  inches in width. The fifth part, which contains the door, is  $5\frac{1}{2}$  feet high, but the same width as the others. Some provision should be made for at least one window.

*Miscellaneous materials.*—Twelve 4-inch rubber balls; 6 bean bags; picture books; story books; 2 wastebaskets; 1 churn; 2 cardboard clock dials; 30 cotton flags, 8 by 14 inches; 1 large silk flag; thirty



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# EDUCATION OF THE DEAF

By

PERCIVAL HALL  
PRESIDENT OF GALLAUDET COLLEGE  
WASHINGTON, D. C.

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[Advance sheets from the Biennial Survey of Education in  
the United States, 1918-1920]



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# EDUCATION OF THE DEAF.

By PERCIVAL HALL,

*President of Gallaudet College, Washington, D. C.*

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**CONTENTS.**—Number of schools and their form of organization—Status of the schools for the deaf—Compulsory education—School age—Size of classes—Oral teaching and the combined system—Auricular instruction—Industrial training—Salaries—Pensions—Preparation of teachers—New school plants—Dual schools—Methods of support—Lip reading for the adult deaf—Education of deaf soldiers and sailors—Matters of special interest—Meetings of educational organizations—Higher education of the deaf—Mental and educational tests.

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## NUMBER OF SCHOOLS AND THEIR FORMS OF ORGANIZATION.

Since the publication of Dr. E. A. Fay's article on the Progress of Education of the Deaf in the Report of the Commissioner of Education for 1913 the number of public residential schools has not increased, remaining at 64. The number of pupils, however, has risen in this time from 10,837 to 11,103, the former number being 82 per cent of the pupils in 1912 and the latter number representing 80 per cent of all the deaf pupils under instruction in the United States in October, 1919.

The States of Delaware, New Hampshire, Wyoming, and Nevada have not yet established special schools for deaf children, but continue to provide for the education of their deaf children at public expense in other near-by States.

The public residential schools continue to offer excellent care and supervision over the pupils both in and out of school. As a rule, they provide free tuition, laundry, and necessary medical attention to all the children throughout the school term of about nine months. They also provide industrial training of high grade in many cases and continue to offer from officers of the institution moral and religious instruction to all the pupils whose parents do not arrange for their children to have special sectarian religious instruction.

The number of day schools for the deaf has now risen to 78, an increase of 8 since Dr. Fay's report. The number of pupils taught in these schools has increased from 1,773 (13 per cent) to 2,010, or nearly 15 per cent of the total number under instruction.

In October, 1919, there were 21 private and denominational schools in the United States, or one more than reported by Dr. Fay in 1912. The number of pupils in these schools has risen from 553 (4 per cent)

to 666, or 5 per cent of the total number under instruction. The relative proportion, therefore, of children instructed in the various types of schools has varied only slightly in the past seven years.

The same advantages which existed in the residential schools seven years ago may still be cited. They are as follows: Better industrial training, more careful physical attention, regular hours of study, exercise and work, simple diet, supervision of athletics and play by competent instructors, etc. Such schools also in general, because of the large number of children instructed, offer better graded classes than the smaller day schools are able to provide. A more homelike atmosphere has now been furnished in many of the large residential schools by the erection of cottages for small groups of children.

#### STATUS OF SCHOOLS FOR THE DEAF.

Progress is slowly being made in the classification of schools for the deaf as strictly educational institutions. During the past few years the State school at Council Bluffs, Iowa, has been placed under the board of education, and the school for the deaf in Florida is now classed distinctly with the State university and other educational institutions in all general legislation. Of course, the private schools have never been classed as charitable institutions, as Dr. Fay has pointed out, and the public day schools have always been a part of the common-school system of towns and cities in which they are located. No schools have been changed from an educational to a charitable status in recent years.

In late years very few of the public residential schools have been controlled in any way by politics. There are still a few in the United States in which the office of superintendent is made a political appointment, but as a rule all such positions and all of those on the teaching and domestic force have been filled by the appointment of people qualified to do the work required, without reference to politics.

The States of Illinois and New Jersey have placed many of the positions in their schools under the State civil service.

#### COMPULSORY EDUCATION.

The uneducated deaf man or woman may easily become a burden to society. The educated deaf person is a distinct asset. It is, therefore, especially necessary that there should be adequate compulsory school laws for the education of all deaf children. Only a small percentage of the States have satisfactory compulsory school-attendance laws for deaf children. One of the mistakes in existing laws in a number of States is the low age (from 16 to 18) at which deaf children may leave school. As the average deaf child has been shown by test to be some three or four years behind his hearing brother or

sister in progress in school, it is easy to see that compulsory school laws should require the attendance of deaf children up to 19 or 20 years of age.

The ages for compulsory schooling might well be between 6 and 19, or 7 and 20, and the term of school nine months.

The following model compulsory educational law was prepared at the instance of the conference of superintendents and principals of American schools for the deaf and submitted at a special meeting held at Staunton, Va., in 1914.

#### COMPULSORY EDUCATIONAL LAW.

*Requiring the attendance upon school of deaf children of the State.*

*Be it enacted by the Legislature of the State of -----*

Every parent, guardian, or other person having control of any normal child between ----- and ----- years of age, too deaf or defective of speech to be materially benefited by the methods of instruction in vogue in the public schools, shall be required to send such child or youth to the school for the deaf at the city of -----, during the scholastic year of that year. Such child or youth shall attend such school, year after year, until discharged by the superintendent upon approval of the board in control of such institution.

#### EXCUSING ATTENDANCE.

Such board may excuse attendance when satisfied:

1. That the child is in such bodily or mental condition as to prevent his attendance at school or application to study for the period required.

2. That he is afflicted with such contagious or offensive disease or possesses such habits as to render his presence a menace to the health or morals of other pupils, or for any reason deemed good and sufficient by the superintendent with approval of the board in control of such school.

3. That the child is efficiently taught for the scholastic year in a private or other school, or by a private tutor, the branches taught in the public schools so far as possible.

#### PENALTY.

Any such parent, guardian, or other person failing to comply with the foregoing section shall, upon conviction thereof before the justice of the peace or other court, be deemed guilty of a misdemeanor, and shall be fined in a sum not less than \$5 nor more than \$20 for the first offense, nor less than \$10 nor more than \$50 for the second and every subsequent offense, with costs in each case.

Any person who induces or attempts to induce any deaf or partially deaf child to absent himself or herself unlawfully from school, or employs or harbors any such child unlawfully from school while said school is in session, shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof before the justice of the peace or other court, be deemed guilty of a misdemeanor, and shall be fined in a sum not less than \$5 nor more than \$20 for the first offense, nor less than \$10 nor more than \$50 for the second and every subsequent offense, with costs in each case.

That said fines as provided, when collected, shall be paid to the public-school fund of the county in which the child lives.

## REPORT NAMES OF DEAF CHILDREN.

The principal teacher of every public school in the counties and the truant officers of the cities of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, shall, within 30 days before the close of the school year succeeding the passage of this act, and at corresponding period each succeeding year thereafter, furnish the county superintendent of schools or the board of education of the cities of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, as the case may be, with the name, age, sex, and address of parent or guardian of all normal children who are too deaf to be educated in the public schools, between the ages of \_\_\_\_\_ and \_\_\_\_\_ years, inclusive, living within the boundaries of his or her school district, and who do not attend school. And the county superintendent of schools, or the board of education of the cities of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, shall certify forthwith the names of all such deaf children, with address of parent, age, and sex, to the superintendent of the school for the deaf at the city of \_\_\_\_\_.

(Or)

It shall be the duty of the school census taker to report name, age, and sex of each deaf child in his district, and name of parents, guardians, or custodians, and their post-office address to the county superintendent of education or the truant officer of the cities of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_, who shall send said report of names and addresses to the superintendent of the school for the deaf located at \_\_\_\_\_. That said census taker, county superintendent, or truant officer failing to make reports as provided in this act shall be fined \$5 for each deaf child not so reported. That said fines when collected shall be paid to the public-school fund of the county in which child lives.

(Or)

The provision of this act shall apply to children entitled, under existing statutes, to attend school at the school for the deaf, so far as the same are properly enforceable. Truant officer shall, within 60 days after the passage of this act, and annually between the first day of \_\_\_\_\_ and the first day of \_\_\_\_\_, report to the probate judges of their respective counties the names, ages, and residence of all such children between the ages of \_\_\_\_\_ and \_\_\_\_\_ years, with the names and post-office address of their parents, guardians, or the persons in charge of them; also a statement whether the parents, guardian, or person in charge of each child is able to educate and is educating the child, or whether the interests of the child will be promoted by sending it to the State institution mentioned. Upon information thus or otherwise obtained the probate judge may fix a time when he will hear the question whether any such child shall be required to be sent for instruction to the State institution mentioned, and he shall thereupon issue a warrant to the proper truant officer or some other suitable person to bring the child before such judge at his office at the time fixed for the hearing, and shall also issue an order on the parents, guardian, or person in charge of the child to appear before him at such a hearing, a copy of which order, in writing, shall be served personally on the proper person by the truant officer or other person ordered to bring the child before the judge. If, on the hearing, the probate judge is satisfied the child is not being properly educated at home, and will be benefited by attendance at the State institution mentioned, and is a suitable person to receive instruction therein, he may send or commit such child to such institution. The cost of such hearing and the transportation of the child to such institution shall be paid by the



county after the manner provided where a child is committed to a State reformatory: *Provided*, Nothing in this section contained shall be construed to require the trustees of the State institution mentioned to receive any child not a suitable subject to be received and instructed therein under the laws, rules, and regulations governing such institution.

Respectfully submitted.

J. N. TATE.

AUGUSTUS ROGERS.

A. H. WALKER.

*Committee.*

### SCHOOL AGE.

The tendency to open the residential schools to very young children has grown to a considerable extent and has been one of the reasons for the construction in Morganton, N. C., Austin, Tex., Colorado Springs, Colo., Ogden, Utah, and in other residential schools of separate primary buildings where the younger children have their own special diet, their own playgrounds, classrooms, and general school life.

In a great many cases there seems little advantage in beginning school life so early, as children of this age can receive very little formal education of value. There is no doubt an advantage to those children, however, whose home surroundings are poor, in attending school at 5 or 6 years of age. It is probable also that considerable progress in lip reading may be made even at this early age, which may be of advantage later in the pupils' habitual use of speech in communicating with hearing people.

Well-graded beginners' classes of children from 7 to 8 years old, as a rule, seem to make as good final progress and obtain as good general accomplishment as classes of children entering a school at an earlier age.

### SIZES OF CLASSES.

The number of pupils in a class in schools for the deaf has been reduced since 1912 from 10 to 9 in oral classes and from 12 to 11 in the manual classes. This is encouraging and necessary for the best instruction of deaf children. The methods of education demand a great deal of individual instruction. There is no reason, however, why manual classes should not be as small as oral classes, and it is most desirable that additional manual teachers be employed in many of the schools.

### ORAL TEACHING AND THE COMBINED SYSTEM.

Of 13,779 pupils under instruction in October, 1919, in the United States, 11,238, or 81½ per cent, were taught speech. Of these, 10,376, or 74½ per cent, were taught wholly or chiefly by the oral method; 287, or 2 per cent, were taught wholly or chiefly by the auricular

method. The percentage taught wholly or chiefly by the oral method has increased steadily for many years until it is a question now whether the percentage who can profit best by oral methods has not been considerably passed. Interesting tests of manually taught pupils made by Dr. Pintner, of the Ohio State University, recently would seem to show that many manually taught children are making better progress than could be expected from their mentality, while practically no orally taught pupils are accomplishing the unusual.

It is to be regretted that in a number of schools the manual classes are made up almost entirely of mentally backward children and children entered late in school, and that they are so classified that several grades must be taught by one teacher in the same classroom. This hinders the progress of the children and leads to poorer results than would be obtained were manual classes better graded.

Most of the oral teaching done in the United States is carried on in the combined system schools. Of the children taught speech in October, 1919, eighty per cent were pupils of such schools.

In the combined system schools the method of instruction is supposed to be chosen to fit the individual child. In practice, all young children who enter these schools are placed in oral classes and kept there as long as their mental progress is good. There is no doubt that in some cases the desire of parents for the accomplishment of speech on the part of their children leads to the retention of children in oral classes in combined schools after they have ceased to make the progress which they should attain with their natural mental equipment.

As has been mentioned before, a number of the combined system schools have erected, or expect to erect, separate primary departments in which the younger children may be taught entirely orally and confirmed in the habit of the use of speech and lip-reading to a large extent. They are then transferred to the intermediate department and later to the advanced department, in each of which is maintained one or more manual classes. The manual alphabet and the language of signs is used in chapel exercises, on the playgrounds, and on social occasions with a large majority of these older children.

The adult deaf people of the United States have been, with few exceptions, educated in special schools for the deaf, some under the purely oral method and others under the combined system. These educated deaf people are organized in various ways, the largest body being the National Association of the Deaf, which meets every three years.

A large majority of these adult deaf people are strong in their belief that the use of the manual alphabet and the language of signs is to the general advantage of the deaf child's mental and moral growth. At a meeting of the National Association of the

Deaf, held during the summer of 1920 in Detroit, and attended by nearly 2,500 deaf people, the following resolutions in connection with the education of the deaf were passed:

Whereas much harm is done to the cause of the deaf, especially in their education, by misleading statements constantly made by enthusiasts of one method and another, arousing false hopes in the minds of deaf children, and

\* \* \* \* \*

Whereas we believe our practical experience in life, after leaving a school, in actual contact with the affairs of the world as breadwinners, qualifies us to speak with authority and confidence as to which method, or methods, best fits the deaf to overcome their handicap, and as representing the 60,000 deaf men and women of this country, we ask the earnest attention of all unbiased people to the following declaration of principles:

We believe that every deaf child is entitled to the best education he can receive.

We believe that the oral method *alone* does not give every child this chance and that the method best adapted to the purpose of his education should be employed.

We believe that there is much good in the oral method, but that it is misused to the detriment of many children and that the manual method is not given a fair chance.

We believe that the moral, social, and religious welfare of the deaf is best promoted by the system of instruction which recognizes and makes judicious use of the cultural value of the language of conventional signs. That to fully enjoy the benefits of social, intellectual, and communal gatherings, the sign language is essential.

We believe, therefore, that these ends can all be secured through the combined system of instruction which includes all methods and adapts each to the individual requirements of the child.

We believe in compulsory education of the deaf.

We believe that method by law is wrong in principle, unjust in its execution, is un-American and deprives the deaf child of his birthright.

We believe that all schools should be classed with educational institutions only.

We believe that schools for the deaf should place their industrial departments on the same plane as their literary departments and maintain a higher standard in this department of the school than has usually been done.

### AURICULAR INSTRUCTION.

Auricular instruction is given in the combined system schools as well as in the oral schools. It is thought by a number of educators of the deaf that much more attention should be given to auricular training. Added impetus to this kind of work has been given by the development of training in vibration and rhythm mentioned by Dr. Fay in his article. Aural and oral teachers in many of the schools are employing the piano and other musical instruments to increase the pupil's knowledge of pitch, rhythm, and vibration, and to acquire a more natural use of the voice. The increase in auricular instruction as a principal method has been from 1.36 per cent to 2

per cent since 1912. This percentage should probably be considerably larger. But auricular instruction has always been very largely individual. During the past 30 years various devices have been invented, including tubes and electrical apparatus, with several branches to accommodate up to six or seven pupils. But these have hardly met the varying needs of the partially deaf, so that a whole class can be easily handled together, and growth in this line of instruction has been slow.

### INDUSTRIAL TRAINING.

Industrial training in schools for the deaf has undergone a considerable improvement in the past seven years. The younger deaf children are almost without exception now given simple training in handwork, such as weaving, and are given free-hand drawing and color work of various kinds. Later the boys are taught to use simple tools in woodworking. The younger girls and often the boys are given instruction in simple sewing. At about the age of 12 regular industrial work is introduced for both boys and girls. For the boys some 60 trades are taught among the various institutions in the United States. For the girls sewing, cooking, millinery, housework, printing, photography, nursing, poultry raising, tailoring, dress-making, laundry work, etc., are among the principal lines in which instruction is given.

The tendency in recent years has been to study the industries of the State and to provide first-class instruction in a few trades in each school rather than to branch out into a very large number. Printing, agriculture, tailoring, and carpentry work still remain some of the best trades for the boys, while dressmaking, millinery, sewing, and cooking seem to be most in demand for the girls.

The field of photography and photo-engraving is good, but has not been used by many of the schools as an opening for its pupils.

Equipment for industrial training naturally becomes out of date in the schools, but in almost all of the large residential schools good shops of considerable magnitude are maintained, and many of them are provided with modern machinery of the best kind for the trades taught.

As the independence of the deaf of this country has come largely from successful industrial training, this part of the work of instructing the deaf is very important and is one in which heads of schools are anxious to obtain the best results through proper equipment and efficient teachers. The schools are realizing more and more that instructors in industrial subjects must be trained teachers as well as good mechanics, and the demand for highly trained teachers of this kind has increased greatly in the past seven years.

### **SALARIES.**

The salaries of teachers of the deaf have risen some 25 per cent in the past two years, but in most cases are not yet adequate to meet the increased cost of living. One of the greatest needs in the education of the deaf at the present time is a further increase in salaries paid, not only to the teachers in the academic classes but also to the instructors in industrial lines.

### **PENSIONS.**

Teachers in the schools for the deaf in New York and in the State school at Trenton, N. J., are now entitled to pensions under the State laws, after certain periods of service. Ohio and California will pension teachers of the deaf in the course of a year. Every State should in time include its teachers of the deaf in a general pension system so that the special profession of teaching deaf children may be more attractive.

### **PREPARATION OF TEACHERS.**

It has been impossible in the past few years to obtain enough candidates for training in the special work of instructing the deaf to meet the demands of the schools. The normal class at the State school for the deaf at Indianapolis has been disbanded, and a number of normal classes maintained at other schools have been unable to find enough candidates entirely to fill their capacity. The services of men have been especially hard to obtain and only a few have been trained for the work of instruction of the deaf in the past seven years. Practically all of them have been graduated from the training classes at the school for the deaf at Columbus, Ohio, or from the normal department of Gallaudet College, Washington, D. C. Higher salaries and pensions would no doubt attract both young men and young women to the profession.

An addition to the opportunities for normal training for special work with the deaf has been made by the establishment of a class in the New Jersey State Normal School at Trenton which will graduate candidates with teachers' diplomas after a two years' special course, including observation work in the State school for the deaf at Trenton and special study of the needs of deaf children.

### **NEW SCHOOL PLANTS.**

A number of the schools for the deaf have added greatly to their capacity in the past seven years, notably the schools at Colorado Springs, Colo., Sulphur, Okla., and Austin, Tex. Entirely new plants are being built or planned for at the American School at Hartford, Conn., and the New Jersey school at Trenton. Both of these schools have purchased new sites much larger than those available heretofore. The American School will be rebuilt upon the old institution plan, practically all dormitories, classrooms, etc.,

being in one building. It is planned to rebuild the New Jersey school on the cottage system with a number of small buildings, including separate cottages for young children, intermediate grades, and older children, and separate school and shop buildings.

It is generally accepted among heads of schools for the deaf that the cottage plan of buildings is theoretically better for the development of children in a number of ways. Such plants are expected to answer the objection of the lack of home life in the older institutional buildings and to give better opportunities for supervision of play and study.

### DUAL SCHOOLS.

A number of States still educate their deaf and blind children in the same institution. It is agreed everywhere that this is a mistake, except possibly from the point of actual expense of money. A number of dual schools are planning to separate their deaf and blind children in the near future. The authorities of the Virginia school are endeavoring to accomplish this, but a law for this purpose has so far failed of passage at the hands of the legislature. In California the dual school at Berkeley has been separated by law, but money for the establishment of a new plant for either the deaf or the blind children has not yet been provided.

### METHODS OF SUPPORT.

Methods of support of public schools have changed little during the past seven years. Appropriations have been made by State legislatures in some instances in lump sums and in other instances on the per capita basis. The State of Colorado seems to have the best provision for general support. By law, a certain percentage of the total taxes collected by the State is used for the support of the State school for deaf and blind children.

Where per capita rates have not been raised liberally, State schools have been much handicapped in the past few years by the increased cost of supplies and materials, and a flexible plan of some kind like that used in Colorado, whereby the amount of money provided for the support of the school for the deaf increases with the increasing wealth of the State and also with the tax rate, would seem desirable throughout the United States.

The tendency in a number of States to include estimates for schools for the deaf in State budgets prepared by a central committee and to place entire financial control of appropriations and expenses in the hands of a State board of control has not met with entire success. Too little flexibility is usually allowed in any such plan.

It is also difficult for a board controlling a great many State institutions to take the same personal interest in any one school as a special board controlling a single institution.

**LIP READING FOR THE ADULT DEAF.**

Beside the 11,103 deaf pupils reported as in regular schools for the deaf, there are of course thousands of adults with more or less imperfect hearing. Many of these have great difficulty in carrying on conversation with hearing people. They have already received their general education in schools or colleges for normal persons. A great number of them have felt the necessity of the study of lip reading in order to improve their ability to understand speech.

These adult deaf people naturally do not need the instruction of the special schools for deaf children, but need individual or class instruction in the special art of reading the lips. Miss Bruhn, following the Mueller-Walle method, has instructed a considerable number of special teachers of lip reading, who have established classes in nearly all of the large cities of the United States for adults wishing to learn lip reading. Mr. Edward Nitchie, recently deceased, some years ago evolved a system of instruction in lip reading and established classes in New York City which have been carried on since his death by Mrs. Nitchie. Teachers using this system are also to be found in other large cities.

A number of other more or less experienced teachers of the deaf have taken up this line of work which has resulted in great benefit to many adults with impaired hearing. It is now possible through the Volta Bureau at Washington, D. C., for those in need of such special instruction to get in touch with successful teachers of lip reading for adults in almost any part of the country and receive the benefit of their instruction.

**EDUCATION OF DEAF SOLDIERS AND SAILORS.**

An interesting phase of the education of the deaf during the past few years has been the provision for teaching sailors and soldiers who became deaf during the recent war. These cases consisted partly of temporary deafness caused by concussion and partly of permanent deafness caused by concussion, disease, accidents, or wounds. Dr. Charles W. Richardson, of Washington, D. C., commissioned major in the Medical Corps of the Army and later lieutenant colonel, was placed in charge of the whole plan for handling these soldiers prior to their discharge from the Army.

An able corps of experienced educators of the deaf under the charge of Capt. A. C. Manning, formerly of the Mount Airy School, was provided at Cape May, in base hospital No. 11. General educational facilities were provided here for all patients, deaf or otherwise, together with a considerable amount of shop or trades instruction.

The special teachers of the deaf confined their work almost entirely to the teaching of lip reading to the deaf soldiers received at the hospital, and the results accomplished were most satisfactory.

Intensive lessons in speech reading were given for from 45 minutes to an hour three times daily by two or three different instructors to each pupil individually. The general plan followed was largely based on the Mueller-Walle method of instruction.

After an average of eight weeks of such teaching, a large majority of the pupils were able to read the lips with a considerable degree of success. A number of them became quite expert lip readers.

A few State schools for the deaf were called upon to aid in the general education of deaf young men discharged from the Army or Navy. One young man was entered at Gallaudet College and a few were admitted to the Ohio school. In general, the State schools for the deaf, whose courses are limited to grade work and part of the high-school subjects, were not the proper places for the admission of deafened adults; and the arrangement made at Cape May, with the provision for the vocational training of all in need of such education in higher institutions for the hearing, seems to have met the situation most satisfactorily.

#### MATTERS OF SPECIAL INTEREST.

In the States of Indiana and Illinois, traveling agents are now employed by the residential schools. It is the business of these agents to look up deaf children in need of education, to follow up those children who have dropped out of school, to keep in touch with the graduates who are at work, and to assist those who are out of employment to obtain positions.

This is no doubt one of the most helpful and interesting developments in the education of the deaf in recent years, and such a plan might well be adopted by practically every State in the United States.

It is interesting to note the change in recent years in the attitude of industry toward deaf workers, brought about probably by war conditions. While this is not strictly a matter of education of the deaf, it is a matter of education in regard to the deaf on the part of the public. During the scarcity of labor in war time, it was found by more and more manufacturers that deaf people gave intelligent service, were not liable to accident, and in every way satisfied requirements in factory and office in many lines of work. The result has been the employment of many hundreds of deaf people in the rubber industry in Akron, in the automobile industry in Detroit and Flint, and in a number of manufacturing plants in New England.

In the Goodyear Rubber Co.'s plant at Akron, Ohio, an educational department especially for the deaf has been established with regular teachers, offering courses in English, arithmetic, drawing, and other subjects tending to make the employees more valuable citizens generally and to fit them for higher positions in their work with the company.



### MEETINGS OF EDUCATIONAL ORGANIZATIONS.

Since Dr. Fay's report there have been held three meetings of the Convention of American Instructors of the Deaf, one in Staunton, Va., in 1914, one in Hartford, Conn., in 1917, and one at Mount Airy, Philadelphia, in 1920. The last was a joint meeting of the Convention of American Instructors of the Deaf, the American Association to Promote the Teaching of Speech to the Deaf, and the Society of Progressive Oral Advocates.

There have also been held special meetings of the conference of superintendents and principals at Staunton, Va., in 1914, and at Columbus, Ohio, in 1919. Reports of the proceedings of the meetings of the convention have been issued as Senate documents—No. 986, Sixty-third Congress, third session, and No. 172, Sixty-fifth Congress, second session. The proceedings of the meetings of the conference have been issued in the American Annals of the Deaf, the official organ of the conference.

### HIGHER EDUCATION OF THE DEAF.

The higher education of the deaf is still provided for at the Columbia Institution for the Deaf in Washington, D. C., in the advanced department known as Gallaudet College. The number of free scholarships provided for worthy students has been increased from 100 to 125. Courses in agriculture, printing, library work, typewriting, domestic science, and drawing have been added to the curriculum since Dr. Fay's report in 1913.

While a few deaf young men and women of ability have been able to carry on courses of study at regular institutions for higher education in various parts of the country, a very large majority of the deaf seeking higher education have entered Gallaudet College. The degrees of bachelor of arts and bachelor of science, master of arts, and master of science, in course, are offered to successful students.

The graduates of the college are successfully engaged in the ministry for the deaf, business, agriculture, architecture, teaching, publishing, printing, chemistry, and many other fields.

### MENTAL AND EDUCATIONAL TESTS.

During the past few years Dr. Donald Patterson, formerly of the Ohio State University, and Dr. Rudolph Pintner, connected with the department of psychology of the Ohio State University, have worked out both mental and educational tests to be used in studying deaf children.

These mental tests have been developed until they are believed to give much information as to the native mental ability of deaf children, without depending upon the amount of language they have acquired. The educational tests have also been carefully worked

out. Both can be applied to hearing children as well as to the deaf. Over 2,000 pupils in our schools for the deaf have been tested by Dr. Patterson and Dr. Pintner and their assistants, and some very interesting results have been obtained in this way.

It has been the hope of those most interested in this work that by using the tests with large numbers of children comparisons can be made between the congenitally deaf and those who have become deaf later in life, between those taught orally and those taught manually, and between hearing children and deaf children of the same age. It has also been hoped that by testing whole schools and classes, both the especially bright and especially dull children, they can be graded better in their work; also that in a general way the quality of the work of the teachers of the school can be determined by comparison of material at hand and results obtained.

From the number of tests made already those in charge do not feel that it is safe to draw too definite conclusions. It appears, however, that deaf children on the whole are mentally about three years behind hearing children of the same age, but that once in school their progress is about as rapid.

It is hoped that a great many more tests of this kind will be made. If they can be relied upon to compare the value of the various methods of instructing the deaf, a great deal will be accomplished for the advancement of the education of deaf children.

A committee consisting of Mr. R. O. Johnson, formerly of the Indiana school; Dr. Augustus Rogers, of the Kentucky school; Dr. A. L. E. Crouter, of the Mount Airy school, and Mr. J. W. Jones, of the Ohio school, was appointed at the meeting of the conference of superintendents and principals at Staunton in 1914 to study the question of the efficiency of our schools for the deaf and to prepare a general scheme for the measurement of such efficiency. This committee has just published its report, which was submitted in brief at the meeting of the conference held at Columbus in December, 1919.<sup>2</sup>

From the work of the committee and the investigations of psychologists of proper standing and experience and with the cooperation of heads of schools for the deaf it seems possible that in the near future surveys of these schools will be made, including mental and educational tests, investigation as to equipment, industrial training, etc., which will lead to many helpful suggestions and improvements in the organization of all institutions devoted to the education of deaf children.

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<sup>2</sup> Standardization—Efficiency—Heredity—Schools for the Deaf, Richard O. Johnson, A. M., Indianapolis.

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DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1921, No. 15

# MEDICAL EDUCATION 1918-1920

By

N. P. COLWELL, M. D.

Secretary of the Council on Medical Education and Hospitals of the  
American Medical Association, Chicago, Ill.

[ Advance Sheets from the Biennial Survey of Education  
in the United States, 1918-1920 ]



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## MEDICAL EDUCATION, 1918-1920.

By N. P. COLWELL, M. D.,

*Secretary of the Council on Medical Education and Hospitals of the American Medical Association, Chicago.*

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When the report for 1916-1918 was written, the medical schools were in process of being converted under Government control into units of the Students' Army Training Corps. Under the man-power bill the entire Nation was placed on a war basis, and its entire energy was consecrated to the winning of the war. This required that all able-bodied men between the ages of 18 and 45 be enlisted in the Army and Navy. Colleges and universities, including the medical schools, became centers for the training of officers for the new armies. In the instruction, courses of military value were given first consideration, the curricula being prescribed by the War Department, those in the medical schools differing less from the prewar schedule than in other collegiate departments. The members of the medical school faculties who were considered as "essential teachers" were kept at their duty and not granted commissions as medical officers. These teachers, in fact, were actually in the service of the United States. This restriction was in effect a recognition of their skill as "essential teachers," and, had the war continued, some suitable evidence of such recognition would have been devised.

On August 28, 1918, when the change in the status of colleges and medical schools was announced, the medical schools were ready to open the fall sessions on their usual prewar schedule. The changes ordered made necessary an extensive revision of these schedules. These revisions and the fact that the fall session was so near, if it had not already begun, made some confusion inevitable. The time-consuming routine of changing the students from a civilian to a military status—questionnaires, physical examinations, inductions, waiting in line, etc.—took up most of the student's time which otherwise would have been spent in study. The placing of six hours per

week of military training into an already overcrowded schedule added to the confusion, which in many instances was further increased by a temporary conflict between the military officers who were supreme and the educational officers. For example, drill hours were frequently placed at the time set for laboratory or clinical courses. Orders through military channels were finally sent to commanding officers in medical schools where such difficulties occurred to make the hours for military drill conform with the teaching schedules. Other difficulties, such as the assignment of students to guard duty, to raking leaves, to kitchen-police duties and the like, were also dealt with by orders from the War Department. The change from quiet rooms at their homes or in other private dwellings to barracks where no provision was made for study made it difficult for the students to do effective work. To cap the climax came the epidemic of influenza, which required the closing for a few weeks of many of the schools. During the first eight weeks that elapsed after the opening of the fall session, therefore, very little effective teaching had been done in the medical schools where military training had been established. Some of the colleges extended their sessions for a few weeks into the following summer to make up the time lost.

In spite of the handicaps, however, deans and teachers of medical colleges were cooperating to the utmost with the War Department toward the chief end in view—that of winning the war. All recognized the wisdom of establishing the Students' Army Training Corps as the best means of conserving the supply of medical officers if the war should be long continued. All recognized that a certain amount of confusion was inevitable at the beginning, but that, in time, order and efficiency would prevail, both from the military and educational standpoints. Happily, the war was not prolonged, the signing of the armistice made unnecessary the further sacrifice of time by students and faculties, and the prewar status in medical schools was restored by the War Department as rapidly as possible.

#### STATUS OF MEDICAL EDUCATION IN 1917.

As shown in previous reports, medical education had been undergoing an extensive reorganization during the 15 years prior to the time when the United States entered the World War. By 1917, in fact, the majority of medical schools were operating under higher entrance standards and possessed more abundant laboratory and hospital facilities, so that for several years the majority of graduates had had the benefit of these advantages. At no previous time had the country been so well supplied with physicians who had received a training in accordance with the latest knowledge of medi-

cine and under the most improved methods of instruction. That further improvements were needed, of course, was well recognized, but these needs were emphasized and the more important were clearly indicated by the experiences of medical officers during the war.

#### NEEDS IN MEDICINE AS REVEALED BY THE WAR.

In no previous war had so large a proportion of the world's population become involved, and in no previous war was there so great a demand for those possessing the highest knowledge and skill in every line of human interest and endeavor. In no previous war had such vast armies been called into action, or such large numbers of physicians been required. Because of the many and varied measures used in modern warfare also, there was an unprecedented demand for physicians who were skilled along the lines of every narrow specialty. That the supply of such specialists was inadequate to meet the demand was not surprising. Those who are familiar with the great improvements in medical education during the period of 1904 to 1917 will readily appreciate how much more serious would have been the deficiency of qualified physicians had not that campaign for improvement been made.

As a result of the war, the medical schools resumed their prewar status with a much clearer vision of the improvements needed in medical education, and promptly took steps to meet those needs. Perhaps the most important need was of a better training in physical and clinical diagnosis, which, in turn, required a closer contact of the student with the patient, so he could gain a larger experience in writing histories and in making physical examinations. Toward this end an overabundance of clinical lectures and large amphitheater clinics in the medical schools have given way to an increased number of small-group bedside clinics; to clinical clerkships in which students under supervision are placed in charge of patients; and to clinical conferences where students and teachers discuss interesting cases or unusual conditions found.

Another need was for a larger knowledge by physicians generally of public health and hygiene. This required that more hours be devoted to this subject in the undergraduate curriculum and that larger facilities be provided for graduate instruction. A third great need was of larger provision for the training of physicians in all the various specialties of medicine and the establishing of a standard minimum course of graduate training leading to each of these specialties.

#### RECENT PROGRESS IN MEDICAL EDUCATION.

In many ways the progress in medical education, which has been so marked since 1904, has been continued during 1918 to 1920. The

excessive number of medical schools existing in 1904 has been brought more nearly to a normal supply by the closing of five more of the medical schools—mainly those of low grade. In 1919 the College of Physicians and Surgeons of San Francisco was discontinued; the College of Homeopathic Medicine of the State University of Iowa was abolished by the Iowa Legislature; and two other medical schools were suspended, these being the Lincoln Medical College, Eclectic, Lincoln Nebr., and the Leonard Medical College, the medical department of Shaw University, an institution for Negro students at Raleigh, N. C. In 1920 the College of Physicians and Surgeons of Los Angeles, the medical department of the University of Southern California, was abolished by the trustees. The medical schools of the Universities of Arkansas and Alabama have discontinued the teaching of the clinical branches, so as to concentrate their efforts on an improved teaching of the preclinical sciences. The latter has moved its medical school from Mobile to Tuscaloosa, where it is being developed on the campus of the university. The University of Wisconsin has secured a legislative enactment under which in the next two years it will provide a complete four-year course, including instruction in the clinical branches. The University of Rochester, N. Y., has received endowment funds of \$10,000,000—\$5,000,000 each from Mr. George Eastman and from the General Education Board for the founding of new schools of medicine and dentistry.

It is probable that the number of medical schools will be further reduced by the closing of several others of low grade. The total numbers of students and graduates, however, are increasing, and, judging from the number of students enrolled in premedical classes, will continue to increase for at least several years. The increases are now more marked in the highest grade (class A) medical schools.

There are 85 medical schools now existing, and of these 77 are requiring for admission two or more years of work in a college of liberal arts—a requirement which places medical education in America on a par with that in the world's other leading nations.

A brief contrast of the statistics in 1920 with those in 1904 will be of special interest. In 1919-20, of the 14,088 medical students enrolled, 13,408 (95.2 per cent) were in colleges requiring for admission two or more years of collegiate work. In 1920, of the 3,047 graduates, 2,842 (93.3 per cent) possessed the higher preliminary qualifications. In 1904 only 2.5 per cent of all medical schools required these higher qualifications for admission, and only 6.2 per cent of all students and 6.4 per cent of all graduates held such qualifications. (See Table 1.)



TABLE 1.—*Smaller quantity but better quality.*

Entrance requirements.	Colleges.				Students.				Graduates.			
	1904		1920		1904		1920		1904		1920	
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.
Four years of high school or less.....	158	97.5	8	9.4	26,391	93.8	680	4.8	5,378	93.6	205	6.7
Two years of college work..	4	2.5	77	90.6	1,751	6.2	13,408	95.2	369	6.4	2,842	93.3
Total.....	162	.....	85	.....	28,142	.....	14,088	.....	5,747	.....	3,047	.....

The totals of medical colleges, students, and graduates have been reduced by about 50 per cent since 1904, but it is noteworthy that the number of higher standard schools is 19 times larger than before, and the numbers of better qualified students and graduates are nearly eight times larger. The totals at the present time conform more nearly to the normal supply for this country.

#### MEDICAL TEACHERS.

Twenty or twenty-five years ago medical faculties were made up, with a few rare exceptions, of practicing physicians who appeared at the college only at the hours assigned to them for lectures or clinics. Teaching positions in the clinical branches were eagerly sought for and frequently held a high financial value. Chairs in the laboratory or preclinical branches also were acceptable, but chiefly as stepping stones to appointments in the clinical departments. With the extension of medical knowledge, however, the need of teachers who should devote all their time to teaching in the medical school became apparent, especially in the fundamental medical sciences, so that at the present time medical schools have on the average about 20 such teachers. The numbers naturally vary with the financial ability of the medical school to employ them. In those having limited finances, there may be only from three to eight such teachers, aided only by a few student assistants, while in the more generously financed medical schools each pre-clinical department has a complete staff, including all ranks from professors to demonstrators and assistants, the total reaching as high as 80 or more.

In the last 15 years there has been a gradually increasing number of all-time teachers in the clinical departments also, these being mainly assistants, instructors, and occasionally assistant professors. It was in the clinical departments, however, where teaching positions attracted those practitioners who at the same time were good teach-

ers, and it was not difficult to secure efficient clinical staffs at little or no financial outlay. With the rapidly improving financial status of medical schools in recent years, however, there has been an increasing tendency to limit the practice of the clinical teachers or to engage all their time for such work. For many years several of the prominent medical schools have limited the practice of their professors of medicine and surgery to consultations, to practice in a nearby hospital, to assigning to them a certain number of hospital beds, or by other methods of limitation. During the last few years, also, under grants of money from the Rockefeller General Education Board and the Carnegie Foundation for the Advancement of Teaching, it has been stipulated that the chairs of medicine, surgery, and pediatrics should be filled by salaried physicians, who shall receive no fees for private practice and whose sole interests shall be in medical teaching. Four medical schools are now definitely on that basis and two others are now making provision for such teachers.

As in other departments of education, there is at present a serious shortage of teachers for the full-time positions in medical schools. This is especially true of those who have had a complete medical training, so that many of the teaching positions in the preclinical branches are filled by graduates in the arts and sciences who have not studied medicine. Other things being equal, the former are to be preferred; in fact, are necessary if the much-needed closer relations are to be established between the preclinical and the clinical departments. It is hoped that better salaries or other means may be provided by which a larger number of teachers who have had a medical training may be attracted to teaching positions.

With the development of improved methods of clinical teaching there is a growing need of full-time teachers in the clinical departments also. Some of these would in time develop the skill and reputation which would make them eligible later to occupy the full-time professorships in medicine, surgery, and pediatrics which are becoming more and more available.

#### LIMITATION OF ENROLLMENTS.

Sixteen of the better medical schools have limited their enrollments to the number which they judge can be taught satisfactorily and are turning away each year many who are qualified to enter. Other medical schools are contemplating similar action. This, coupled with the reports of increased enrollment of premedical students, has caused some anxiety lest in the early future the medical schools will be unable to take care of all the well-qualified students who may wish to study medicine. An investigation, however (see Table 2) shows that the 68 highest grade (class A) medical schools can enroll without over-

crowding 15,430 medical students, or about 1,500 more than are enrolled in the 85 medical schools now existing in the United States.

TABLE 2.—*Capacity of medical schools under limited enrollments.*

Medical colleges.	Number colleges.	Total enrollment.					Average enrollment per college.
		First year.	Second year.	Third year.	Fourth year.	All four years.	
Enrollments limited.....	16	1,136	1,121	1,151	1,151	4,559	285
Report highest capacity with efficiency:							
Four-year colleges.....	31	2,222	2,109	2,063	2,056	8,450	273
Two-year colleges.....	8	307	304	.....	.....	611	76
Estimated highest capacity with efficiency:							
Four-year colleges.....	10	430	430	410	410	1,680	168
Two-year colleges.....	3	65	65	.....	.....	130	43
Totals, class A colleges....	68	4,160	4,029	3,624	3,617	15,430	227

By the employment of more teachers, by the enlargement of their laboratories, and by the completion of the new college buildings which have been planned, or are now in course of construction, it will be possible, if necessary, to handle efficiently as many as 17,000 or 18,000 students. It appears, therefore, that the medical schools now existing are fully adequate to meet the needs for several years to come.

#### CONTINUOUS SESSIONS IN MEDICAL SCHOOLS.

Much discussion has been given in educational circles to the reorganization now under way of the grammar school and high school curricula whereby two years of the student's time is being saved. Another entire year of time is being saved in the medical course itself, in medical schools which have adopted a continuous session. Two methods have thus far been devised. One is the "quarter system," by which the calendar year is divided into four terms of three months each, successful completion of the work of any three quarters to count as a college year. The second plan is to divide the year into three terms of four months each, the work of any two terms to count as one college year.

The continuous session permits the student who is physically and mentally able to do so to continue at his medical studies the year around. The "quarter system" provides a week's vacation between the fall and winter quarters, another week between the winter and spring quarters and (as worked out at the University of Chicago) three or four weeks' vacation between the summer and fall quarters. This is an adequate vacation time for the majority of students and would save much time now wasted in the present over-long three months' vacation period.

The continuous session would enable each medical school to teach larger numbers of students; it would also keep an expensive teaching plant in continuous and, therefore, larger service; students who may for good reason have failed to matriculate at the beginning of each session would no longer be required to wait an entire year, but could begin during the following quarter, and students having to take make-up courses could also clear them up during the summer session.

### HOSPITAL INTERNSHIPS.

Another important means of perfecting the training of future physicians is to require an internship in a hospital as an essential for the degree of doctor of medicine, or for the license to practice, or both. The internship is at present required for the degree by ten medical schools, and for the license—it so happens, also—by ten State licensing boards. In earlier years such a requirement would have been a hardship, since there were not enough hospitals using interns to provide places for all graduates in medicine. The unprecedented trend toward hospital construction of the last few years, however, has caused the pendulum to swing the other way. Now the hospitals are seeking many more interns than the medical schools could supply, even if the output of medical graduates should be doubled or trebled—a greater quantity than the ordinary needs of medical practice would warrant. Instead of recent graduates as interns, the hospital will need to employ one or more resident physicians to serve for a series of years.

### NO DEARTH OF PHYSICIANS.

The greatly increased demand for interns does not mean that there is a shortage of physicians. Nor is a shortage indicated in the fact that many of the rural districts are not supplied with physicians. There is, at the present time, 1 physician to every 720 people in the United States, or twice as many as are found in Great Britain, which has the next largest supply (1 to 1,500, just before the war). The demand for interns by hospitals is due, first, to the rapidly increasing number of hospitals, and second, to the improved educational qualifications of recent graduates in medicine due to the higher admission requirements of medical schools during the last several years and to the greatly improved methods of medical instruction. The scarcity of physicians in rural districts is due to economic conditions—to the fact that physicians can not make a living in those districts; that a physician does not have the advantages either for his family or for his professional work that he finds in the near-by city. The needs of rural districts for physicians

will be offset by the telephone, the automobile, improved roads, and interurban cars, by which patients can more readily get to the physician, or the physician to the patient, than heretofore. Plans are now being contemplated for the erection of community hospitals in each county, which will not only provide physicians with the conveniences for modern diagnosis and treatment not usually found in country districts, but also insure for the patient the benefit of these latest improved methods. Meanwhile, by providing the rural districts with hospitals, better schools, and other means of modern culture and living, the present rapid movement of the population from the country to the city may be checked.

#### GRADUATE COURSES FOR THE TRAINING OF SPECIALISTS.

The tremendous increase in medical knowledge since the perfecting of the microscope and the discovery of bacteria<sup>1</sup> has led physicians more and more to limit their practice to certain narrow fields of medicine, such as surgery; internal medicine; diseases of the eye; diseases of the ear, nose and throat; diseases of children, etc. By thus limiting his practice the physician is able to develop greater skill in the diagnosis and treatment of the diseases coming within his specialty. The great demand during the war for those having special skill along various lines has emphasized the need of encouraging specialization. It also has pointed the need of methods by which the physician who has taken special preparation to properly qualify himself as a specialist may be differentiated from one who, although professing to be a specialist, has obtained neither the knowledge nor the skill required in the specialty. To provide these methods, 15 special committees under the auspices of the American Medical Association are now studying the needs of the various specialties in order to prepare suggestive minimum courses of instruction by which graduates in medicine may qualify themselves in the various specialties. Some satisfactory method may be established, possibly by the granting of a certificate, by which proper recognition may be given to those who are found competent to practice as specialists. This will enable the public to ascertain who are properly qualified to announce themselves as specialists in medicine, surgery, pediatrics, etc.

#### GRADUATE COURSES FOR PHYSICIANS.

The establishing of definite courses of training in the various specialties will, it is hoped, lead to the development of courses of clinical instruction in the various large hospitals of the country in

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<sup>1</sup> See chapter on medical education in the report for 1914.

which the material for graduate medical teaching is at present unorganized and unused. The improvements in the undergraduate medical schools brought about during the last 15 or 20 years have insured the turning out of better qualified physicians than formerly. There is, however, a special need of courses by which physicians who graduated under less favorable conditions may be made familiar with the latest improved methods of diagnosis and treatment and by which recent graduates may secure special skill along certain limited lines. The development of facilities for graduate instruction will result in larger numbers of thoroughly trained physicians, and the sick and injured will be greatly benefited thereby. The public generally will be benefited also by the greater knowledge of sanitary measures and skill in health preservation.

### **BETTER LEGAL CONTROL OF THE HEALING ART.**

With the great improvements made during the last 15 or 20 years, medical education in the United States is now equal to that in any civilized nation. Medical practice laws, however, have not kept pace with that progress, and as compared with other civilized countries the public in the United States is not nearly so well safeguarded against ignorance and incompetence on the part of those who practice the healing art. A practice act in each State should provide that before anyone is legally authorized to attempt to diagnose diseases or to treat the sick he shall have obtained educational qualifications equal to those furnished by the better medical schools. Such a law in each State should be placed for its enforcement in charge of a single board of competent educators, and liberal funds should be provided for carrying out its provisions. Unfortunately, in this country—and only in this country—a number of so-called “schools” of healing, having specially coined but meaningless titles, have been established in recent years in each of which a certain method of treatment has been advocated as a panacea for the ailments to which human kind is subject. Practitioners of these “schools” are clamoring for legal permission to practice under lower educational requirements than those required of physicians. After a prolonged consideration of this problem the United States Supreme Court decided unanimously<sup>2</sup> that such practitioners, like physicians, must begin by a diagnosis and that “for a general practice science is needed.” Other decisions have been rendered showing that the practice of these various schools is in fact only a part of the field covered by the practice of medicine, and that the safety of the public requires a grounding in the fundamental medical sciences.

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<sup>2</sup> Collins v. State of Texas (U. S., 1912), 32 S. C. Rept. 286.

**THOUSANDS OF REMEDIAL AGENTS.**

Many thousands of remedial agents and procedures have been found of value in the treatment of human disorders, the use of any or all of which are included under the general term, "the practice of medicine." Many patients require surgical treatment, such as those having wounds in which arteries are severed, or injuries in which bones are broken, or those suffering from malignant or obstructive tumors, etc. In such cases it would be dangerous or fatal to omit the surgery and to depend alone on manipulation of the spine, on prayer, or on giving only a medicinal substance. Patients with diphtheria must be isolated to prevent the spread of the malady, antitoxin must be promptly administered, local antiseptics applied, and other routine forms of treatment followed. To omit the antitoxin and use any one form of treatment, such as massage, would be disastrous. Failure to recognize the disease as diphtheria would endanger the entire community from the probable spread of the epidemic. Again, patients who have taken poisons, whether accidentally or not, require the prompt use of antidotes, some of which are powerful drugs. Here again, to substitute some other form of treatment, such as massage, suggestion, prayer, manual manipulation, or rubbing of the spine, would be futile, and the patient would simply die from neglect. To know what treatment to apply and to avoid dangerous errors, a scientific training is essential.

**KNOWLEDGE OF FUNDAMENTAL SCIENCES ESSENTIAL.**

The different methods of treating diseases, taken singly or in groups, are comparable with the various instruments in an orchestra. Before anyone is competent to play in an orchestra—whether it be on the violin, the cornet, the slide trombone, or the bass drum—he must first have received a thorough training in the fundamentals of music. This is necessary so that he may know not only *when to play* but also—just as important—when he *should not play*. In fact, a note from any instrument in the wrong place is usually more disastrous than if the player fails to respond when he should. So in the practice of the healing art. Everyone who treats human diseases and injuries by any special method or system of treatment should have a thorough training in the fundamental medical sciences so that he may know, not only *when to use* the particular method he is specializing in but also—just as important—when that particular method *should not be used*. Here again the use of a wrong remedial agent in the treatment of a patient may be more disastrous than if such treatment is not used at the time the indications call for it. The omission of the right treatment may indeed have

serious results; a wrong treatment may result in the death of the patient or seriously complicate his trouble. To insure efficient care of the sick, therefore, a scientific education is required.

### ESSENTIALS FOR THOSE WHO TREAT THE SICK.

From the foregoing it will be seen that the following principles should apply equally to all who are to treat people who are sick or injured, no matter whether he be a physician, an osteopath, a chiropractor, a Christian scientist, or one who is to use intelligently any special method or system of healing:

(1) He needs to have a knowledge of the living human body and its many complex normal structures and functions in order to clearly recognize abnormal conditions, diseases, and their causes.

(2) He needs a training in dispensaries and hospitals, where he can study patients suffering from all the more common diseases, so that he may be able to recognize the disease or injury he is attempting to treat; otherwise his treatment will be unscientific, dangerous guesswork, more likely to do harm than good. This training is needed no matter whether medicines are employed or not and no matter what system or method of treatment may be used.

(3) He needs to be educated in regard to the many and varied forms of remedial agents and procedures which are of generally recognized value, so he may apply the treatment most helpful to each particular patient. That which will be of benefit in one disease may have serious or fatal results in another. In emergency cases an early recognition of the conditions existing is of vital importance, since failure to promptly apply the right treatment may result in the death of the patient.

### THE UNIVERSAL REQUIREMENT.

The following is the minimum standard of education now deemed essential in all civilized countries for practitioners of the healing art:

(a) Completion of a secondary school course equal to the four-year course in the better high schools, and, in addition,

(b) Two years of work in a college of liberal arts, including courses in physics, chemistry, and biology.

(c) A medical training under expert teachers, consisting of a four-year course in a well-equipped medical college, including two years in the laboratories of anatomy, physiology, bacteriology, hygiene, pathology, pharmacology, and physiological chemistry, and two years devoted to the study of patients with all classes of diseases in the dispensary and at the patient's bedside in a hospital.

(d) The practical experience obtained in a fifth year spent as an intern (resident physician) in a good hospital.



**A SQUARE DEAL FOR ALL.**

The minimum training outlined in paragraphs (a), (b), and (c) is now required *of physicians* in 33 States in this country, while that outlined in paragraphs (a) and (c) is required *of physicians* in all States. If physicians are required to have that essential training, it does not seem an American "square deal" that any others who are to treat the sick should be licensed with inferior qualifications. Granted that there is some good in the methods of healing employed by others than physicians, that good will in no way be diminished if those employing such methods are first required to obtain a thorough training in the fundamental medicinal sciences.

One educational standard should be established, therefore, for all practitioners of the healing art, regardless of the system or method of treatment advocated, and no one should be given the legal right to treat the sick unless he measures up to that standard. Everyone who wishes to treat the sick should be required to show that he possesses the education as outlined, then he should be licensed as a physician and allowed to use any method of treatment which his educated common sense would indicate.





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DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

BULLETIN, 1921, No. 16

# SPECIAL FEATURES IN THE EDUCATION OF THE BLIND DURING THE BIENNIUM 1918-1920

By

EDWARD E. ALLEN

Director of the Perkins Institution and Massachusetts School for the Blind  
Watertown, Mass.

[Advance Sheets from the Biennial Survey of Education  
in the United States, 1918-1920]



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## EDUCATIONAL BOARDS AND FOUNDATIONS.

By HENRY R. EVANS,

*Editorial Division, Bureau of Education.*

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CONTENTS.—General Education Board—Rockefeller Foundation—Carnegie Foundation for the Advancement of Teaching—Phelps-Stokes Fund—John F. Slater Fund.

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The activities of the educational boards and foundations of the United States from July 1, 1918, to June 30, 1920, were varied and interesting. A number of important studies and surveys were made that throw light on educational problems of the highest importance to the Nation and State, which are briefly set forth in the following compilation.

### GENERAL EDUCATION BOARD.

The General Education Board, since its foundation in 1902, has appropriated the sum of \$15,048,704, toward the general endowment of colleges and universities, but this does not include appropriations to professional departments, such as medical departments and schools of education. The following is a statement of appropriations for the year ending June 30, 1919—For whites: Universities and colleges, \$1,825,000; colleges and schools, current expenses, \$20,000; medical schools, \$605,000; professors of secondary education, \$43,054.99; rural school agents, \$80,660; Lincoln School, \$115,000; consolidated rural schools, \$8,000. For Negroes: Colleges and schools, \$352,160; medical schools, \$157,500; rural school agents, \$76,080; summer schools, \$12,200; county training schools, \$61,290; homemakers' clubs, \$43,575; expenses of special students at summer schools, \$26,250; scholarships, \$3,000; Negro rural school fund, \$24,500; John F. Slater Fund, \$4,500; Association of Colleges for Negro Youths, \$500; critic teachers, \$6,000. Agricultural work: Maine agricultural demonstration work, \$36,200; New Hampshire agricultural demonstration work, \$26,000. Miscellaneous: General survey of educational conditions and needs in North Carolina, \$7,500; general survey of educational conditions and needs in Virginia, \$12,500; survey for preparation of mental measurements of school children, \$25,000; expenses rural school agents at Harvard summer

school, \$1,000; model county organization, \$8,400; conferences, \$4,485.66; National Committee on Mathematical Requirements, \$16,000. Total, \$3,601,355.65.

In addition there was appropriated from the income of the Anna T. Jeanes Fund for Negro rural schools, \$10,353.01; and from the income of the Laura S. Rockefeller Fund, for Spelman Seminary, \$28,000. During the year ending June 30, 1919, the board made appropriations aggregating \$1,175,000 toward a total of \$4,375,000 to be raised by the colleges and universities assisted. The institutions thus aided were as follows: Dakota Wesleyan University, Mitchell, S. Dak.; Drury College, Springfield, Mo.; Emory and Henry College, Emory, Va.; Jamestown College, Jamestown, N. Dak.; Salem College, Winston-Salem, N. C.; Tulane University, New Orleans, La.; Westminster College, Fulton, Mo.; West Virginia Wesleyan College, Buckhannon, W. Va.

The financial operations of the General Education Board for the year ending June 30, 1920, were as follows: The income for the year amounted to \$4,741,223.66. The income carried over from the preceding year, after adding sums refunded, amounted to \$9,996,875.85, making a total of \$14,738,099.51 available for disbursement.

Of this sum \$3,631,027.99 was disbursed, leaving a balance of \$11,107,071.52. The statement of appropriations for the year is as follows—For whites: Universities and colleges, \$17,039,307; medical schools, \$9,304,247; professors of secondary education, \$91,291; rural school agents, \$80,817; Lincoln School, \$497,201; State agents for secondary education, \$116,100. For Negroes: Colleges and schools, \$1,579,000; medical schools, \$257,500; rural school agents, \$71,837; summer schools, \$28,400; county training schools, \$160,000; expenses of special students at summer schools, \$15,000; Negro rural school fund, \$65,000; John F. Slater Fund, \$4,500; critic teachers, \$9,000. Miscellaneous: General survey of educational conditions and needs in North Carolina, \$4,000; increases in salaries of State agents, \$40,000; model county organization, \$7,400; conferences, \$4,546; national committee on mathematical requirements, \$25,000; vocational arts survey, \$60,000; division of educational relations, \$10,000; educational investigation and research, \$6,000. Total, \$29,476,146.

In addition to the foregoing the sum of \$9,475 was appropriated from the income of the Anna T. Jeanes Fund for Negro rural schools, making a combined total of \$29,485,621.

On January 1, 1920, the last installment of Mr. Rockefeller's gift from his special fund of approximately \$10,000,000 was transferred by the University of Chicago in trust to itself. All control of the board over this fund having ceased, it is now eliminated from the board's books.

In June, 1920, the trustees of the General Education Board and the Rockefeller Foundation announced gifts totaling \$20,261,900 for general education and development of medical schools. The foundation estimated that it would be necessary to increase endowment funds by two hundred million dollars in order to advance the salaries of college professors to a degree partially commensurate with the rising cost of living. Nearly 250 institutions applied for appropriations from the fund of \$50,000,000 which Mr. Rockefeller gave in December, 1919. In order to provide the required increase in endowment funds to insure living salaries for professors, the above-mentioned sum in the hands of the board will have to be augmented by funds from other sources in the ratio of two or three to one. This has to be kept in mind, the announcement says, in making appropriations which are contingent upon the raising of additional amounts. At a meeting of the trustees in June, 1920, appropriations were made to 98 colleges and universities. A total of \$12,851,666 was given on condition that the institutions raise \$30,613,334. This procedure would increase the endowments available for teachers' salaries by \$43,465,000. There remains nearly \$35,000,000 to be distributed.

The following appropriations to medical schools in the United States were made by the General Education Board, while those to institutions in Brussels and Halifax were voted by the Rockefeller Foundation:

Washington University Medical School, St. Louis, for endowment, \$1,250,000, for additional laboratory facilities and equipment, \$70,000; Yale Medical School, for endowment toward a total of \$3,000,000, \$1,000,000; Harvard Medical School, for improvement facilities in obstetrics, \$300,000; for the development of teaching in psychiatry, \$350,000; Johns Hopkins Medical School, for development of a new department of pathology, toward a total of \$600,000, \$400,000.

Medical research foundation of Elizabeth, Queen of the Belgians, Brussels: For general purposes of medical research, 1,000,000 francs. Other appropriations by the General Education Board were:

For cooperation with State universities and State departments of education in the Southern States in the field of secondary and rural education, \$287,350.

For Negro schools appropriations aggregating \$943,500 were made for the following objects: For general endowment, \$500,000; for current expenses and equipment, \$443,500.

Other Rockefeller Foundation appropriations were as follows: For the American Conference on Hospital Service, to establish and maintain library and service bureau, \$15,000; for the National Committee for Mental Hygiene, for surveys during 1920 of care and treatment of mental diseases and deficiencies, \$25,000.

## ROCKEFELLER FOUNDATION.

During the year 1919 the Rockefeller Foundation participated in activities of public health and medical education in 39 different governmental areas. Yellow fever control was successfully extended in Ecuador, Nicaragua, Honduras, and Salvador. Public health progress through cooperative campaigns for the cure and prevention of hook-worm disease was made in 13 Southern States of the American Union, in 7 of the States of Brazil, in 5 islands of the West Indies, in 5 countries of Central America, and in Ceylon, the Seychelles Islands, China, and Queensland. Demonstrations in the control of malaria were continued in Arkansas and Mississippi, and arrangements were made for extending the programme to 8 other Southern States. A systematic organization for combating tuberculosis in France was widened to include 21 departments. A modern medical school under foundation auspices opened its doors in Peking; premedical schools were aided in Changsha, Shanghai, and Nanking; medical courses were supported in Tsinanfu; and 17 hospitals in various parts of China were aided. Cooperation was continued in the maintenance of an institute of hygiene in Sao Paulo University in Brazil.

A school of hygiene and public health at Johns Hopkins University was entirely supported by foundation funds.

The foundation provided fellowships and scholarships for 85 persons who were in residence in universities in the United States. Fifty-seven came from China, 12 being Chinese doctors, 8 Chinese medical students, 7 Chinese nurses, 26 medical missionaries on furlough, and 4 prospective appointees to the board's teaching staff in China. Five doctors from Brazil, one from Salvador, and four from Czechoslovakia pursued courses in public health. Five American physicians held fellowships in the same field. The foundation also supported 13 research fellows in physics and chemistry, who were selected and supervised by a special committee of the National Research Council.

Officers of the foundation made special visits to the Far East, Europe, Canada, and South America in the interests of public health and medical studies. In order to provide expert direction for its growing work, the foundation established a division of medical education and appointed as director Dr. R. M. Pearce, professor of experimental medicine in the University of Pennsylvania Medical School. The sum of \$5,000,000 was set aside for use in Canada to promote medical education.

The income from invested funds of the foundation was approximately seven millions. The expenditures for 1919 were as follows: Public health, \$1,467,713; medical education and research, \$3,248,547; war work (final payments), \$2,772,847; miscellaneous, \$119,332; administration, \$151,916; total, \$7,760,355.



## CARNEGIE FOUNDATION.

The labors of the Carnegie Foundation for the Advancement of Teaching for the year ending June 30, 1919, were devoted largely to the reorganization of its existing pension system and the inauguration of its new plan of insurance and annuities.

During the year, the trustees received for general purposes a total income of \$1,555,987.68—in addition to \$50,486.55 from the endowment of the division of educational inquiry—\$655,987.68 from the general endowment, and \$900,000 from the Carnegie Corporation of New York on account of its appropriations of \$200,000 a year for 5 years, \$600,000 a year for 10 years, and \$100,000 a year until the transfer of the final two million dollars of Mr. Carnegie's gift of March 31, 1908. There was also received from the corporation one and three quarter million dollars in November, 1918, and three quarters of a million in April, 1919, these payments completing the transfer of five million dollars voted by the corporation in November, 1917. The current expenditures were as follows: (a) General endowment—Retiring allowances and pensions in institutions on the associated list, \$718,082.25; retiring allowances and pensions granted to individuals, \$110,303.33; total retiring allowances, \$828,385.50. Expenses of administration, \$49,359.97; publication, \$10,888.62; total, \$888,634.17; (b) division of educational inquiry—General, \$4,824.85; study of legal education, \$8,685.11; study of training of teachers, \$16,058.08; study of engineering education, \$5,986.76; total, \$35,554.82.

The list of associated institutions was increased by the admission of Allegheny College, on February 7, 1919, and Vanderbilt University, on March 7, 1919. The fourteenth annual report of the president and treasurer of the foundation for 1919 contains a tribute to Mr. Carnegie, who died in August, 1919, and an elaborate review of the new pension scheme. During the year 1918-19, the trustees disbursed in retiring and widows' allowances more than \$800,000. But in that year the old plan of granting such allowances was definitely abandoned in favor of a scheme under which the teacher himself is called upon to contribute toward the provision for his own retirement.

The Carnegie Foundation came to the conclusion, as a result of 13 years' experience, that a "free pension" could not be a solution of the problem in a democratic country, but that the system must be contractual and rest upon the cooperation of the teacher and his college. This method, in the opinion of the trustees, is the only one that is "just, feasible, and permanent." To this end they organized a Teachers' Insurance and Annuity Association, in the control of which the teachers themselves will have real representation, and invited the

universities and colleges to adopt pension schemes based on joint contributions by the teacher and his institution and worked by means of policies issued by the new association. The trustees continue the system of free pensions for those who were in the service of associated institutions before a certain date, but for others will content themselves with the provision of disablement allowances and the guarantee of a certain rate of interest on policies issued by the association. Says the report:

The system of insurance policies and of old age annuities offered through the Teachers' Insurance and Annuity Association contains the fundamental principles suggested by the teachers themselves and approved by the commission which reported on this matter at the instance of the trustees of the Carnegie Foundation. The policies are contractual. They offer both insurance and annuities at lower rates than they can possibly be provided in purely commercial companies, and the association has announced a plan under which the policyholders will have a real representation in the control of the company, instead of the ostensible representation provided under what is known as mutualization.

The Teachers' Insurance and Annuity Association began the issuing of contracts in March, 1919. On the completion of the first six months of its operation it had written over \$750,000 of life insurance on medically selected lives, and had written annuity contracts which at maturity will amount to \$116 000 annually representing total expected payments in excess of \$1,000,000. The association employs no agents. These various contracts were written in 70 different universities and colleges. Before the end of the fiscal year, June 30, 1919, nineteen institutions had accepted the plans proposed by the Teachers' Insurance and Annuity Association for the provision of old-age annuities by the joint cooperation of the teacher and his college.

By January 15, 1920, 29 institutions had reported their adoption of the plan. In order to clear up many misapprehensions regarding the working of the new pension scheme, the foundation issued a pamphlet entitled "Misapprehensions Touching Life Insurance." The report, under the caption of "The Relation of the Old-Age Annuity to Salary," says:

The plan offered in the Teachers' Insurance and Annuity Association rests upon the only principles which can insure contractual security, the widest measure of freedom, and a cost determinable in advance. The colleges and universities that are participating in the contributory system of old-age annuities say to their teachers: If you elect to take out an annuity contract the college will cooperate with you by a similar contribution not to exceed 5 per cent of the salary and up to an agreed maximum. While the conditions of cooperation vary somewhat in different colleges and universities, they are in effect those just stated.

The foundation at the end of its fourteenth year had distributed \$7,000,000 in retiring allowances and pensions to 852 persons, 54 grants having been made during the year. There are now operative 347 retiring allowances and 183 widows' pensions, the allowances averaging \$1,943 and the pensions \$971.

Of the total expenditures \$5,600,000 went to the associated list of 73 institutions. The report contains a table showing this appropriation to each of these institutions during every year of the foundation's history. Harvard has received a total of \$556,000; Yale, \$491,000; Columbia, \$405,000; and Cornell, \$326,000. Amherst, Johns Hopkins, Massachusetts Institute of Technology, Princeton, Stevens Institute of Technology, Tulane University, the Universities of California, Michigan, Minnesota, Missouri, and Wisconsin have each received more than \$100,000, the average for the 11 institutions being \$130,000.

In 1920 the foundation issued a bulletin on "Justice and the Poor," which constituted the second in a series of studies in legal education and cognate matters. The report sets forth in non-technical language, first "the defects in the administration of the law which work in effect a denial of justice to the poor or to the ignorant; and secondly, the agencies supplementary to the existing machinery, whose object is to remedy these defects." Delay, court costs and fees, and expense of counsel are enumerated as the important defects. Among the remedial agencies suggested to remedy these defects are the small claims court, the agencies for conciliation and arbitration, the domestic-relations court and administrative tribunals, and all officials authorized to deal promptly with disputants. The object of the study is to prove that the various agencies, if properly articulated with the existing system of the administration of justice, can be made to secure, so far as human means can do, the practical equality of all men before the law and to afford to all citizens, without regard to wealth or rank or race, the means for a prompt, inexpensive, and fair adjudication of their complaints.

In June, 1920, the foundation made its report on "The professional preparation of teachers for American public schools," which originated in an investigation of teacher-training facilities in Missouri, as requested by the governor of that State in 1914, but the study of the Missouri situation was found to involve a thorough-going examination of the whole teacher-training problem in the United States, and the findings in the Missouri survey are regarded by the foundation as furnishing a valuable index to conditions elsewhere. According to the report the teaching profession should be placed upon a collegiate footing and organized under a single competent direction as a part of the State university, parallel with medical, legal, engineering, and other similar divisions of higher education.

The authors of the report are: Dr. William S. Learned, of the Carnegie Foundation, who organized and directed the study; Prof. William C. Bagley, of Teachers' College, Columbia University; Dr.





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## EDUCATION IN HOMEOPATHIC MEDICINE DURING 1918-1920.

By W. A. DEWEY, M. D.,

*Secretary of Council on Medical Education of the American Institute of Homeopathy.*

---

Education in the homeopathic schools of medicine is under the direct guidance of the American Institute of Homeopathy, and the requirements of the American Federation of State Medical Examining Boards are fulfilled in all details, so that graduates may comply with the requirements of all the States and Territorial possessions. The Council on Medical Education of the homeopathic national organization recognizes only acceptable schools, requiring all to conform to a minimum standard. This procedure has tended to reduce the number of colleges and to improve their quality.

At the present time homeopathic medicine is taught in Boston University School of Medicine; New York Homeopathic Medical College and Flower Hospital; Hahnemann Medical College of Philadelphia; Homeopathic Medical School of the University of Michigan; Homeopathic Medical School of Ohio State University; and Hahnemann Medical College and Hospital of Chicago.

Two other State universities include in their medical curriculums the teaching of the homeopathic system of materia medica and therapeutics, namely, Iowa State University Medical School and the medical school of the University of California.

In common with all medical schools, those of the homeopathic system have suffered during the biennium 1918-1920 from a fewer number of students, due to two circumstances, the war and the added two years of college work as a preliminary requirement. The 1918 freshmen classes were small, as the armistice was not signed until several weeks after the opening of the college sessions, sufficiently long to make it impossible to secure credit for a full year's work by matriculating at that time. In most schools the senior and junior classes were depleted by the draft, and the sophomore classes nearly wrecked thereby.

In 1919, however, there was a marked increase in the entering classes of all our schools, and the promise of much greater increase for 1920 is bright.

A survey of the various schools is of interest, as showing the actual status during the biennium 1918-1920:

*Boston University School of Medicine, Boston, Mass.*—This school had a total of 60 students in 1918-19 and 88 students in 1919-20, the increase being for the most part in the freshman class. This institution is in intimate connection with the Massachusetts Homeopathic Hospital, and furnishes postgraduate work to many not enumerated above, which refers solely to undergraduates and excludes postgraduate and special students to the number of 25. Evans Memorial Hospital, with 30 beds; Haynes Memorial Hospital for Contagious Diseases, with 150 beds; and Westboro State Homeopathic Hospital for the Insane, with 1,300 beds, are affiliated with the school. During the past two years there has been improvement in the teaching of the fundamental branches of medicine, especially in anatomy, in which a new system of teaching has been employed.

*New York Homeopathic Medical College and Flower Hospital, New York.*—This institution is now in its 60th year and has always ranked as one of the largest institutions of the homeopathic school in respect to the number of students enrolled. Its classes, however, have diminished from the causes mentioned, the war and additional requirement of two years of college work. This remark applies to all New York schools. The New York board of regents' certificate is necessary for admission.

The number of students attending during the past two years was as follows: 1918-19—freshmen 10, sophomores 54, juniors 36, seniors 42, total 142; graduates in 1919, 29. Year 1919-20—freshmen 31, sophomores 18, juniors 43, seniors 34, total, 126; graduates in 1920, 31.

This school, besides its own hospital, has affiliation with the Metropolitan Hospital, the New York Ophthalmic Hospital, and the Willard Parker Hospital. Maternity instruction is also furnished by the Lying-in Hospital, the Maternity Hospital, and the Sloan Hospital for Women. There are 18 full-time men on the faculty.

*Hahnemann Medical College of Philadelphia.*—Hahnemann Medical College, of Philadelphia, has two departments, a school of medicine and a school of science, which conforms to the request of the Pennsylvania Bureau of Medical Education and Licensure to the medical colleges of the State to give the required instruction in physics, chemistry, and biology. This enables this institution to offer a combined course yielding the degrees of B. S. and M. D. in six years under a legal charter. This is the custom with most State university schools.

This is the oldest homeopathic medical college in the world, and this report comprises the seventy-first and seventy-second annual sessions, the attendance in the medical school being 144 and 133, re-



spectively, and in the school of science 60 and 78, the totals being 204 for 1918-19 and 223 for 1919-20.

This institution is endowed to the amount of \$325,000, and the property valuation is approximately \$3,000,000. There is a loan fund of \$40,000, the income of which is lent to deserving students. The school places a limit of 40 students in each class. Besides the hospital intimately connected with the college, it affiliates with St. Luke's, Children's, and West Philadelphia Hospitals, and with the Allentown State Homeopathic Hospital for the Insane. In these and other hospitals, approved by the council, graduates secure the hospital intern year required by the Pennsylvania law as a prerequisite to the receiving the license to practice in the State.

*Homeopathic Medical College of Ohio State University, Columbus, Ohio.*—This college was the result of the union of the homeopathic schools of Cleveland and Cincinnati with the University of Ohio in 1914 and is one of the 10 colleges and schools of that university and is located on the university campus at Columbus. The first unit of a new hospital was opened in 1916 and has accommodations for 60 patients, in addition to the old hospital, which accommodates about 30 patients.

The chief event in the biennial period just closing is a gift of \$400,000 from Mr. Charles F. Kettering, of Dayton, which is to be devoted to scientific investigation of disease according to homeopathic methods. A fine laboratory devoted to homeopathic research, the best in the homeopathic school of medicine, already exists in this college, made possible by previous gifts from the same generous donor. The results of the work done in this laboratory as far as published have attracted much attention in the medical world.

*Homeopathic Medical School of the University of Michigan, Ann Arbor.*—The oldest homeopathic medical college connected with a State university was established 45 years ago. At the time of its establishment it had two teachers; its growth has been steady, and at present there are five full professors, two assistant professors, three instructors, and six assistants, all of whom are full-time men.

This school has ever maintained its position as one of the leading medical educational institutions of the homeopathic school.

The developments of the past two years include the erection of a new Children's Hospital, accommodating 70 patients, which was opened in November, 1918, for the reception of influenza patients occurring in the students' United States Army and Navy training corps connected with the university, and after the subsidence of the epidemic it reverted to its original purpose.

*Hahnemann Medical College and Hospital, of Chicago, Ill.*—Hahnemann Medical College and Hospital of Chicago has become



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DEPARTMENT OF THE INTERIOR

U.S. BUREAU OF EDUCATION

BULLETIN, 1921, No. 19

# KINDERGARTEN EDUCATION 1918-1920

By

JULIA WADE ABBOT

[ Advance sheets from the Biennial Survey of Education in  
the United States, 1918-1920 ]



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# KINDERGARTEN EDUCATION, 1918-1920.

By JULIA WADE ABBOT, Specialist in Kindergarten Education.

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## KINDERGARTEN EXTENSION.

The unified effort of women during the war for the conservation of child life has brought about an active interest in the extension of kindergartens. Two aspects of kindergarten work relate directly to needs discovered during the stress and strain of the war: (1) The need for organized child-welfare work in the preschool years; (2) the need for emphasizing the social aspect of school work, such as home visiting and mothers' meetings. A number of women's organizations have undertaken kindergarten extension work.

An organized campaign for kindergarten extension in Texas was undertaken early in 1919 as the outcome of activities pertaining to "Children's Year." The combined strength of the child-welfare department of the State Council of Defense, the State Federation of Women's Clubs, the State Congress of Mothers, and the kindergarten section of the State Teachers' Association has been directed toward making effective the law enacted by the Texas Legislature in 1917. A fund devoted to child-welfare activities by the child-welfare department of the State Council of Defense made it possible to defray the expenses of a field worker for a time, with the result that in a number of Texas cities kindergartens were established for the first time as part of the public-school system.

The education department of the General Federation of Women's Clubs has begun a campaign which has as its object a kindergarten in every elementary school in the United States. The subject of kindergarten extension was presented at two sessions of the biennial meeting in Des Moines, June, 1920. A kindergarten chairman has been appointed in each State, and will cooperate with the kindergarten chairman of the General Federation in making a State survey of kindergarten conditions. The subject of kindergarten extension is to be a part of the program of each State meeting.

The National Congress of Mothers and Parent-Teacher Associations has had a department of kindergarten extension for six years. In cooperation with the National Kindergarten Association, progressive legislation has been secured in a number of States. Following the passage of the mandatory-on-petition law in California, the National Kindergarten Association has maintained a field secretary, and the rapid growth of kindergartens in that State has proved the value of this plan.

An intensive campaign is being carried on in North Dakota by the State kindergarten chairman. The names of organizations and individuals interested in kindergarten extension are being secured through the cooperation of county superintendents. Presidents of local clubs are then to form a kindergarten committee to cooperate with the county superintendent. In this way it is expected that public interest will be aroused and petitions, with the required number of signatures requesting the establishment of kindergartens, will be presented to local school boards. Local club presidents are including the subject of kindergarten education in their yearly program. When it is not possible to secure a speaker, a lecture with accompanying lantern slides provided by the kindergarten division of the Bureau of Education is presented.

The formation of State Kindergarten Associations, provided for by an amendment to the constitution of the International Kindergarten Union, is proving another means of coordinating kindergarten interests in the State. Indiana has formed a State organization, and Michigan, New York, and Wisconsin have tentative organizations on a State-wide basis. Ohio has had a State organization for a number of years, and is carrying on a vigorous campaign for more kindergartens under the slogan, "First Aid to the Uninjured!"

Virginia, at its State Teachers' Association meeting in Richmond, passed a resolution dissolving the separate kindergarten and elementary sections and established in their stead an organization "which shall have as its aim the education of children from 4 to 8 years of age."

The New York State Association is working for the passage of a mandatory-on-petition kindergarten bill. Illinois is also organized for progressive kindergarten legislation, and Washington is carrying on an educational campaign under the auspices of the State Normal School. The Louisville Kindergarten Association is planning a State campaign.

As a result of the activities of the Baltimore Kindergarten Club, Maryland, the board of education has made provision for 10 new kindergartens in the public schools, and a preprimary training department has been established in the Baltimore Teachers' Training School.

## KINDERGARTEN LEGISLATION.

*Arizona.*—The influence of the kindergarten movement in California and Texas has made itself felt in Arizona, and a kindergarten law was enacted by the legislature of 1919. The two main provisions of the measure are as follows: (1) Upon petition of the parents or guardians of 15 or more children between the ages of 4½ and 6 years residing within 2 miles of any elementary school building, the board of school trustees of a district shall "employ proper certificated teachers in kindergarten schools in such elementary school buildings"; and (2) the board of supervisors of each county is authorized to levy such additional tax upon the taxable property within such school district as will be sufficient to cover the expenses of kindergarten classes.

*Changes in Indiana law.*—The new law in Indiana includes several improvements upon the former law. State funds for tuition may now be used for kindergartens as well as for other grades of the common schools; the power to levy a tax of 2 cents on the \$100 is now extended to incorporated towns and cities of less than 6,000 population; and the turning over of the fund resulting from this tax to a kindergarten association for the support of kindergartens is now left to the discretion of the school authorities.

*New school code in Delaware.*—A new school code adopted in Delaware gives to county boards of education the power to provide kindergartens.

*Permissive kindergarten legislation in Alabama and Virginia.*—In the new school codes of Alabama and Virginia permissive kindergarten legislation authorizes the use of local funds for the maintenance of kindergartens.

## KINDERGARTENS IN TOWNS AND VILLAGES.

In towns and villages of fewer than 2,500 inhabitants there were enrolled in kindergartens during the school year 1917-18 approximately 21,000 children, under the direction of nearly 600 teachers. The leading States for kindergartens in smaller places are Michigan and Wisconsin, with Nebraska, Iowa, and California coming next in order.

The need for further extension of the kindergarten in the rural districts has been recognized in other States. A campaign to reach rural communities has been organized in Texas. That this campaign is in relation to a real need is evidenced by letters received by the kindergarten division of the Bureau of Education. A mother in Texas writes:

I have just read in the Dallas Times-Herald that you are launching a movement for better kindergarten work in Texas, and I want to wish you Godspeed.

I am a country mother with two small sons and I have a horror of putting them in a school, knowing they will have to sit on a seat from 8 a. m. until 4 p. m., with perhaps two or three 10-minute reading lessons and maybe a little number work. I believe every rural school should have a kindergarten teacher. They might combine kindergarten and first-grade work.

A teacher in a Maryland country community writes:

We are in great need of a kindergarten here in this town. Many children are solitary little ones from isolated small farms and country homes and need badly the socializing influence of the kindergarten and supervised work and play. They have few toys and no books in the homes, and we do the best we can during their first and second grades to have the play spirit, but with our course to cover and 78 little ones in the first and second grades it is about impossible.

A county superintendent in North Dakota writes:

In our consolidated school I can see my way clear to strongly recommend the installation of kindergartens. In this county there are about 600 children who should receive the benefit of kindergarten training. So far as I know, there has been only one attempt made at this work in this county, and that was a private kindergarten in which I had my two little youngsters enrolled. This is a work that the public in general has had very little time to consider so far, but I keenly feel the great necessity for vigorous and determined action along this line of work.

In one town in Texas a small group of club women solved the problem of securing a kindergarten by collecting \$1 for each inhabitant and building a beautiful little bungalow, which was presented to the board of education, and Lufkin had a kindergarten.

A kindergarten-primary course is being given at the Chico Normal School, California, with special emphasis upon training teachers in rural schools to meet the needs of the younger children. The fact that all of the State normal schools of Texas have opened kindergarten training departments gives promise of enough trained kindergarten teachers for the towns and villages that open new kindergartens.

#### TWO WAR ACTIVITIES CONTINUED.

Two important phases of kindergarten work that were carried on during the war are still furthered by kindergarten teachers throughout the country. They are Americanization among the foreign-born children and the support of the kindergarten unit in France.

*The kindergarten unit in France.*—In appreciation of the service rendered by the 15 kindergarten teachers sent by the kindergartners of America to minister to the little French children, Dr. William Palmer Lucas, chief of the children's bureau of the American Red Cross in France, congratulates Miss Curtis, director of the unit, on the record achieved, and says: "Your choice of the personnel and the place they have made for themselves in every community where they



have worked is, in my opinion, one of the finest records made in France."

The unit has extended its field in these days of reconstruction by sending traveling kindergarten camionettes, in little Army wagons, to the villages in the Aisne during the summer of 1919. The kindergartners go from village to village, telling stories and playing games with the children, and leaving with them interesting handwork which keeps the children busy and happy until the kindergarten camionette can make its next visit. The French Government has given a camionette to establish the same type of work around Lille, with headquarters at Arras.

The unit brought joy to many French children at Christmas time, when large Christmas trees were brought from Belgium and erected in the devastated villages of the Aisne, where the unit has been carrying on its work. The children of Boston sent 1,500 dolls to their little French sisters.

The French Government has been convinced of the value of the educational methods of the American kindergarten teachers as well as of the value of their social work. A *jardin d'enfants* training department is to be opened in Sèvres College in October by the French Government. Mademoiselle Amieux, the president of the college, is heartily in sympathy with the aims and methods of kindergarten work and welcomes the incorporation of a kindergarten training department in this college for training teachers in France.

In July, 1919, Miss Curtis, with Miss Aborn, president of the International Kindergarten Union, went to Serbia, and as a result of their visit a kindergarten is to be opened the first of October, 1920, in an orphanage for war orphans in Belgrade.

*Americanization.*—The kindergarten has always been an important Americanization agency. Before the war had awakened the whole Nation to the need for Americanization work among the foreign born the kindergartner was going to the homes of the foreign mothers and giving them friendly help and advice in relation to the customs and institutions of their adopted country and concerning the care and welfare of their children. The foreign women were persuaded to attend mothers' meetings in the kindergarten room, and so were brought into close sympathy with the school.

This social aspect of kindergarten work was carried on more intensively than ever before by the kindergarten teachers during the war period; and in the days of reconstruction the work with the foreign born has been expanded through affiliation with other organizations. In several cities the kindergarten teachers have worked in conjunction with the international institute of the Young Women's Christian Association.

The International Institute of the Young Women's Christian Association is a service bureau for the foreign born. In appreciation of the value of the kindergarten to the foreign mother a kindergarten pamphlet has been prepared and published in 16 foreign languages. It explains in a simple, readable manner what the kindergarten does for the child and how it helps the mother. Through cooperation with the kindergarten division of the Bureau of Education, this pamphlet has been widely distributed in cities throughout the country having a large foreign population. The practical work of the International Institute is divided into two classes—case work and group work. From Pittsburgh is sent this statement:

The group work is both educational and recreational in character, with a strong emphasis on the recreational side. In all group work, as far as possible, the idea of reciprocity is brought out, and the fact that American culture is composed of contributions from all the world is emphasized. Groups are gathered from various sources, but it is felt that work with the groups formed in seven schools through the cooperation of the kindergartens will have a far-reaching result. Pittsburgh kindergartners in the foreign districts of the city realize the immense difficulty of getting the foreign-born women to come to the mothers' meetings. The reluctance on the part of the foreign women is quite understandable. Inability to speak or to understand English, timidity in the presence of the American mothers, often makes the meeting anything but pleasurable. However, the kindergartens have met with a measure of success, but after the children leave kindergarten the mothers practically never come in contact with the school.

The kindergarten teachers in the public-school kindergartens of Pittsburgh have done such effective work in home visiting that their services are to be employed as school visitors in the homes of the children in the grades as well as in the homes of the kindergarten children. This social work is made the basis upon which the kindergarten teachers receive the same salary as the teachers of the elementary grades. In Chicago, Ill., Springfield, Mass., and Washington, D. C., kindergarten teachers, because of their special ability, have been appointed directors of the Americanization work of the public schools. In Minneapolis a group of kindergarten teachers have worked in a large Polish district under the direction of the visiting teacher of the public school, making a house-to-house canvass, and bringing information to the school authorities of the condition of the families in the district. The kindergarten teachers, through their local club, volunteered to do this work. Following their example, a group of primary teachers have offered their services.

#### THE KINDERGARTEN AND THE HOME.

The Bureau of Education committee of the International Kindergarten Union is making a study of the curricula of women's colleges in order to determine what these institutions for higher

education are doing to train young women for the responsibilities of home making and child training. To quote from the report of the chairman of the committee:

The inquiry has hardly more than begun, but it is already apparent that a conception of fundamental importance in the preparation of young women for life is being ignored—that of the significance of the child in the home and to society, and the relation of women to its development and training. Many of the colleges whose curricula have been studied have well-equipped home economics departments and offer admirable courses in dietetics, textiles, household management, and the several household arts. Practically none of these offer courses in that highest of arts—the directing of young lives into channels of right thinking and doing. The kindergarten training school has been almost alone among educational institutions in standing for the need of training for motherhood. Because of the experience of kindergarten graduates as to the value of such training, kindergartners feel that they have a contribution to make to the curricula of other institutions for the education of young women. To attempt to convert the women's college to this view may be an ambitious task, but it is one to which the committee in question is committed.

The University of Minnesota has recognized the importance of including child training as a part of home making by offering a course in child training by a kindergarten specialist to the students of the home economics courses.

Two newspaper bulletins on kindergarten principles applied to the training of children in the home have been prepared by the kindergarten division of the Bureau of Education and have been widely distributed to newspapers throughout the country. Such topics as Baby Talk, Common Sense in Managing Children, Children and Their Toys have been treated by the foremost specialists in kindergarten education in the country, with the purpose of helping mothers in the upbringing of their children in the complexity of modern life.

#### THE KINDERGARTEN AND THE SCHOOL.

*Salaries of kindergarten and first-grade teachers.*—A comparison of the salaries of kindergarten and first-grade teachers is based upon data compiled from the answers of 72 cities to a questionnaire sent out by the Bureau of Education. The cities are in the following States: Alabama, Arkansas, California, Colorado, Connecticut, Georgia, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Texas, Virginia, Washington, and Wisconsin.

The maximum salaries of kindergarten teachers range from \$495 to \$1,600 a year. These figures represent the salary schedule of 1918. In a number of cities a new salary schedule goes into effect during 1919 which will bring the range of maximum salaries from \$600 to \$1,800 a year.

In 31 cities kindergarten and first-grade teachers receive the same salary and teach two sessions with the same hours of classroom work.

In 17 cities kindergarten teachers who teach two sessions, but whose classroom work is from 30 to 90 minutes less than that of the first-grade teacher, receive the same salary as the first-grade teacher.

In 12 cities where the kindergarten teachers have one session and shorter hours of classroom work, they receive a lower maximum salary than the first-grade teachers.

In 17 cities the teachers of the upper grades receive higher salaries than the kindergarten and first-grade teachers. In 13 of these cities kindergarten and first-grade teachers receive the same salary. In 1 city the kindergarten teacher receives a higher minimum; in 3 cities the first-grade teachers receive a higher maximum than the kindergarten teachers, but not as high as the upper-grade teachers.

This study indicates that the kindergarten and first-grade positions are on an equal salary basis in the majority of cities.

*New tendencies in kindergarten practice.*—Modern educational theory is bringing about changes in the methods and materials of both the kindergarten and first grade. An inquiry concerning the educational equipment of a modern kindergarten reveals not only interesting changes in the material used but a decided change in methods.

*Indoor equipment.*—Large material in bulk is replacing a limited number of small blocks in boxes. The use of cloth and wood and other industrial materials is replacing the sewing cards and fine paper-weaving mats. Free choice of materials on the part of the child and invention in carrying out his play purposes characterize this type of kindergarten work.

*Outdoor equipment.*—Emphasis upon out-of-doors play suggests that a modern kindergarten be equipped with swings, seesaws, balancing boards, slides, and sand piles, and that, when weather permits, other kindergarten activities be carried on out of doors.

*Standardization of kindergarten practice.*—While a freer method is becoming more general in kindergarten practice, a widespread desire to determine standards for kindergarten procedure has been shown by superintendents, assistant superintendents, supervisors, and teachers. The large demand for the kindergarten curriculum prepared by a committee of the International Kindergarten Union and recently published by the Bureau of Education is an evidence of the fact that a better knowledge of the kindergarten is desired by school people. Another committee has been appointed whose work will be the preparation of a primary curriculum based upon the kindergarten curriculum.

*Changes in the elementary school.*—Reports of two committees of the National Council of Primary Education give evidence of the

fact that the work of the kindergarten is beginning to affect the first grade. A committee reporting on an adequate equipment for a first-grade room emphasizes the need for movable furniture, a space for games and free dramatization, and the kind of materials that will carry on the processes already begun in the kindergarten. The report of a second committee deals with the time allotment given to the various activities of the primary school and the nature of the work of the between-recitation periods. An increasing emphasis is being placed upon activities in which the children exercise their own initiative instead of having the work of all the periods prescribed by the teacher.

*Supervision of kindergarten and primary grades.*—A more organic relation between the kindergarten and the elementary school has been brought about in a number of cities by employing teachers in the kindergarten and the first grade who have had training in both kindergarten and primary work. It is possible to secure the service of teachers with this training because kindergarten-primary courses are being offered in many normal schools. Because of this training the kindergarten teacher understands the work of the grade for which her children are being prepared, and the primary teacher is able to build upon work of the kindergarten. In a number of cities, among which are Denver, Colo., Trenton, N. J., and New York City, the kindergarten teacher passes on with her children into the first grade, alternating terms in the kindergarten and first grade. In this way there is established a continuity in the work, just as there is continuity between any other two grades in a school system.

Supervision of the kindergartens and primary grades by one who has had training and experience in both fields has also tended in a number of cities to unify the work of the first years of school life.

A kindergarten representative in the State department of education in Pennsylvania is to be appointed by the State superintendent, whose duties shall be the extension of kindergartens throughout the State and the unification of the work of the kindergarten and the primary grades in those cities where kindergartens are already established.

#### SURVEYS RECOMMEND ESTABLISHMENT OF KINDERGARTENS.

A survey of education in Hawaii made by the Bureau of Education recognizes the valuable work being done by the Free Kindergarten and Children's Aid Association of Hawaii. The following statement occurs in the report:

Recently one of the members of the survey commission, visiting the public plantation school at Hamakuapoko, Maui, observed that the children of the class of beginners, made up almost entirely of orientals, were unusually responsive to the questions of their teacher, and replying in language of a much better

quality than most beginning children on the plantations can command. Upon inquiry it was learned that the entire class had had training in a near-by kindergarten maintained privately by one of the plantation owners.

Largely in response to the excellent work done by the Free Kindergarten and Children's Aid Association of Hawaii, the Territorial legislature at its last session authorized the department of education to organize one kindergarten on each of the four principal islands. While this program has not yet been fully executed, as insufficient funds were provided, nevertheless it is the first step in a plan which the commission sincerely hopes will lead, within a very short time, to the organization of a kindergarten in every school in the Territory. The commission is convinced, after a careful study of the conditions which obtain in the islands, that no more important single step in Americanizing the children of the foreign born can be taken than in the establishment of a kindergarten or kindergartens in every settlement in the Territory. In order to make such a project a success, it will be necessary for the department to secure an efficient head to this work and to establish training courses under competent directors for the training of teachers for kindergarten work. In this connection the commission would recommend that the training of teachers for the kindergarten be made a part of the work of the educational department of the university, which the commission has recommended elsewhere.

The kindergarten specialist was a member of the survey commission which conducted a survey of the schools of Winchester, Mass. The recommendation was made to increase the number of kindergartens so that all the children of Winchester might have the privilege of kindergarten training now enjoyed in only two of the elementary schools.



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# HIGHER EDUCATION

## 1918-1920

By

GEORGE F. ZOOK  
SPECIALIST IN HIGHER EDUCATION  
BUREAU OF EDUCATION

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*Specialist in Higher Education, Bureau of Education.*

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## STANDARDIZING AGENCIES.

### NON-STATE ACCREDITING AND EXAMINING BOARDS.

Nearly every State in the Union, through the State university or the State board of education, has, after inspection, accredited secondary schools located within its borders. A number of them have also published lists of accredited higher institutions. Naturally there is considerable diversity of practice among the several States, and hence, in the interests of uniformity, various voluntary associations composed of representatives from higher institutions and secondary schools have undertaken the work of standardizing schools and colleges. The College Entrance Examination Board serves those higher institutions which prefer to admit students only by examination, and students who wish to secure admission to college by examination.

### THE COLLEGE ENTRANCE EXAMINATION BOARD.

The total number of candidates examined by the College Entrance Examination Board in June, 1919, was 12,716, as against 10,641 in the previous year. The secretary's report states that 1,327 schools sent candidates to the board's examinations in 1919. Of these, 722 were public schools and 605 private schools, from which there were 4,692 and 7,480 candidates, respectively. In addition there were 544 candidates who were either conditioned college students, or pre-

pared by private tutors, or self-prepared, or who neglected to give the information called for by the board's form of application for examination.

The secretary's report also shows that there was an increase over the previous year of 615 in the number of boys and of 1,560 in the number of girls who took the board's examination. It is interesting to note that in the number of boys from the private schools there was an increase of 590, and from the public schools a decrease of 74; and that in the number of girls from the private schools there was an increase of 716 and from the public schools an increase of 690. The increase in the number of girls taking the examination is doubtless due in considerable part to the return to the examination system of Mount Holyoke, Smith, and Wellesley Colleges.

The following table indicates the general distribution of the candidates in respect to residence, secondary school, and college:

*General classification of candidates.*

	Residence.	School.	College.
New England.....	5, 204	6, 657	8, 367
Middle States.....	4, 689	3, 884	3, 034
Southern Division.....	749	600	51
North Central Division.....	1, 647	1, 052	81
Western Division.....	300	196	54
Not stated and irregular.....	127	327	1, 129
Total.....	12, 716	12, 716	12, 716

A table of considerable interest has been compiled by the secretary of the College Entrance Examination Board for the decade from 1910 to 1920. It shows the number of examination books which have been graded in each subject and the percentage of them which were rated 60 per cent or above:

Subject.	Number of answer books.	Percentage of books rated 60-100.
Greek.....	8, 048	66. 1
French.....	31, 602	61. 9
Latin.....	71, 496	58. 1
Physics.....	11, 079	54. 9
Chemistry.....	6, 441	52. 1
Mathematics.....	78, 232	51. 1
German.....	23, 207	49. 7
English.....	44, 136	45. 2
History.....	28, 536	35. 9
All subjects.....	307, 865	52. 3

Several explanations may be offered for the marked difference in the percentage of students who pass the respective examinations. Some subjects may be better taught than others or there may be a marked difference in the degree of difficulty to master various subjects. The average grades of the history examinations have, however, been so low for a number of years that it was decided at the meeting of the board in April, 1920, to appoint a special committee to re-examine the content of the history requirements.

The new comprehensive examination plan is fast increasing in popularity. The number of candidates seeking admission by this plan increased from 752 in 1918 to 1,969 in 1919. Thirty colleges and universities were designated by candidates for admission under the new plan. Young women, particularly, prefer to take the comprehensive examination, as seems clear from the number who took the new plan examinations for admission to the following higher institutions: Wellesley, 417; Smith, 375; Harvard, 305; Vassar, 251; Mount Holyoke, 171; Yale, 129; Princeton, 82; Radcliffe, 73; Barnard, 55; Wells, 32.

In the list of subjects which new plan candidates elect for examination, English, mathematics, Latin, and French are the most popular. History, German, chemistry, and physics follow in the order named.

#### THE NEW ENGLAND COLLEGE ENTRANCE CERTIFICATE BOARD.

The eighteenth annual report of the New England College Entrance Certificate Board states that the total number of schools which had the certificate privilege in 1919 from the board was 571, of which 92 had the specimen certificate privilege. Of these 340 (about 60 per cent, as against 76 per cent last year) sent one or more pupils on certificate to the colleges represented on the board.

At the present time there are 38 schools on the trial list, and 443 on the fully approved list, making a total of 481. To these may be added 98 schools that have the right of sending specimen students on certificate, making a grand total of 579 schools that have the certificate privilege from the board for the year 1920.

The following institutions compose the membership of the New England College Entrance Certificate Board: Amherst College, Bates College, Boston University, Bowdoin College, Brown University, Colby College, Massachusetts Agricultural College, Middlebury College, Tufts College, Wesleyan University, and Williams College.

In 1919 the University of Vermont withdrew from the board in order to maintain closer relations with the Vermont State system of education, and Mount Holyoke, Smith, and Wellesley Colleges withdrew on account of their decision to give up the certificate system of admission.

**THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.**

In the proceedings of the North Central Association of Colleges and Secondary Schools for 1920 the secretary reports 128 accredited colleges and universities. Six of these institutions were added during 1919 and three in 1920, after having been inspected by representatives of the association. In addition to these institutions the association has accredited 45 institutions primarily for the training of teachers, and 15 junior colleges. The number of accredited secondary schools was 1,353.

**THE ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS OF THE MIDDLE STATES AND MARYLAND.**

The Association of Colleges and Preparatory Schools of the Middle States and Maryland reported for 1919 a membership of 220, of which 65 were colleges and universities.

A commission on institutions of higher education, composed of 14 members, was appointed to adopt from time to time lists of accepted institutions of higher learning which meet the standards recently established by the association.

**THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES.**

The Association of Colleges and Secondary Schools of the Southern States reported for 1919 a membership of 44 universities and colleges and 43 secondary schools. Besides these, there were 18 individual members. The association has accredited 418 secondary schools.

**THE MOVEMENT FOR THE STANDARDIZATION OF COLLEGES AND UNIVERSITIES.**

At its annual meeting, November 28 and 29, 1919, the Association of Colleges and Preparatory Schools of the Middle States and Maryland adopted a series of standards for colleges identical with those adopted a few years ago by the Association of Colleges of New York State and since adopted by the regents of the State of New York as the official definition of that State. These standards are as follows:

**DEFINITION AND STANDARDS.**

An institution to be ranked as a college of liberal arts must have at least eight professors giving their entire time to instruction therein; must require for admission not less than four years of academic or high-school preparation, or its equivalent; must conduct a curriculum of four full years of approved grade in liberal arts and sciences.

It is recommended that in interpreting this definition the following standards should be employed with due regard to the fact that an institution falling below the desired standard in certain particulars may more than make good this lack by excellence in others.

1. A college year should include for each student not less than 34 weeks of actual work, of not less than 15 full periods per week of academic work or the equivalent.

2. Members of the teaching staff in regular charge of classes should have had not less than one year of graduate study, and a majority of them should have had training equivalent to that presupposed by the degree of doctor of philosophy; in all cases efficiency in teaching as well as the amount of research should be taken into account.

3. A preponderance of the teachers who have independent charge of classes should be of professorial rank.

4. The number of periods per week of teaching, for each instructor, should not exceed 16.

5. The curriculum should provide both for breadth of study and for concentration.

6. The curriculum should have justifiable relation to the resources of the institution.

7. There should be library and laboratory facilities adequate to the work which the institution announces, and these should be kept up to their full efficiency by means of adequate annual expenditures.

8. There should be a minimum productive endowment, beyond all indebtedness, of at least \$500,000. In the case of tax-supported institutions or those maintained by religious or other organizations, financial support or contributed services equivalent in value to the endowment specified are substitutes.

NOTE.—For the present the application of this principle will not be strictly made in the case of institutions which otherwise fulfill the requirements, but such institutions will be expected to increase the amount of their productive endowment to the sum indicated at the earliest possible date.

9. Salaries paid the members of the teaching staff should be adequate. The minimum will depend upon the local cost of living as well as upon other factors.

10. In administering entrance requirements, exceptions should be few and made only for reasons of great weight.

11. The records of the graduates of the college in graduate and professional schools should be satisfactory.

In the Association of Colleges and Secondary Schools of the Southern States, the commission on institutions of higher education, which was appointed in accordance with resolutions passed in 1917, presented a set of standards for colleges which the association adopted December 5, 1919. These standards are as follows:

1. *Entrance requirements.*—The entrance requirements shall be at least 15 standard units, as defined in the by-laws of the association, with two conditions allowed; but beginning with 1921 the entrance requirements shall be the completion of a four-year course of at least 15 units in an officially accredited school, or its equivalent as shown by examinations.

2. *Requirements for graduation.*—The completion of college work amounting to at least 15 sixty-minute class periods per week through four sessions of 34 weeks each, excluding holidays, but including the examination periods.

3. *Number of degrees.*—The conferring of a multiplicity of degrees should be discouraged. Small institutions should confine themselves to one or two. When more than one baccalaureate degree is offered all should be equal in requirements for admission and for graduation.

4. *Number of college departments.*—The college should maintain at least eight separate departments in liberal arts and sciences with at least one professor devoting his whole time to each department.

5. *Training of the faculty.*—A properly qualified faculty should consist entirely of graduates of standard colleges and each head of a department should

hold at least a master's degree from a university having a fully organized graduate school. Graduate study and training in research equivalent to that required for the Ph. D. degree are urgently recommended, but the teacher's success is to be determined by the efficiency of his teaching as well as by his research work.

6. *Salaries.*—The average salary paid to members of the faculty is an important consideration in determining the standing of an institution. It is recommended that the salary of a full professor be not less than \$2,000.

7. *Number of classroom hours for teachers.*—Fifteen hours per week are recommended as the maximum for teachers, but in no case shall teachers be required to give instruction for more than 18 hours.

8. *Number of students in classes.*—The number of students in a recitation or laboratory section should be limited to 30. A smaller number is desirable.

9. *Support.*—In addition to income from tuition fees, room rent, boarding halls, etc., the college, if non-tax supported, should have a productive endowment of not less than \$300,000, and, if tax-supported, should receive an annual income of not less than \$50,000.

10. *Library.*—The library should contain, exclusive of periodicals and public documents, at least 7,000 volumes bearing specifically upon the subjects taught, and should have an adequate annual appropriation for permanent additions.

11. *Laboratories.*—The laboratory equipment should be adequate for all experiments called for by the courses offered in the sciences, and these facilities should be kept up by means of an adequate annual appropriation.

12. *Separation of college and preparatory school.*—The college may not maintain a preparatory school as part of its college organization. In case such a school is maintained under the college charter, it must be kept rigidly distinct and separate from the college in students, faculty, and buildings.

13. *Proportion of regular college students to the whole student body.*—At least 75 per cent of the students in a college should be pursuing courses leading to baccalaureate degrees in arts and science. The classification of students must be printed in the catalogue.

14. *General statement concerning material equipment.*—The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the laboratories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both students and teachers.

15. *General statement concerning curriculum and spirit of administration.*—The character of the curriculum, the efficiency of instruction, the scientific spirit, the standard for regular degrees, the conservatism in granting honorary degrees, and the tone of the institution shall also be factors in determining its standing.

16. *Standing in the educational world.*—The institution must be able to prepare its students to enter recognized graduate schools as candidates for advanced degrees, such preparation to be shown by the acceptable standing of its students in such graduate schools.

17. *Professional or technical departments.*—When an institution has, in addition to the college of liberal arts, professional or technical departments, the college of liberal arts shall not be accepted for the approved list of the association unless the professional or technical departments are of acceptable and approved grade.

18. *Blank to be filed triennially.*—No institution shall be approved or retained on the approved list unless a regular blank has been filed with the commission. The said blank shall be filed triennially unless the commission has waived its presentation.

**NATIONAL CONFERENCE COMMITTEE ON STANDARDS OF COLLEGES AND  
SECONDARY SCHOOLS.**

At its annual meeting, March 24, 1919, the National Conference Committee on Standards of Colleges and Secondary Schools adopted the following definition of a college:

A "college" is an institution requiring for admission graduation from a standard secondary school or the equivalent, and offering a four-year curriculum leading to the first degree in arts or science.

In order properly to perform its educational functions, a college should, in the judgment of the committee, have at least:

1. A requirement for admission of 15 units of secondary work, not more than two units of condition being allowed, all special students under 21 years of age being required, except in rare and unusual circumstances, to meet all the requirements for admission, preparatory courses, if any, being distinct in faculty, students, and discipline.

2. A program of studies having a reasonable relation to the resources of the institution.

3. A liberal curriculum, with advanced work in several fields, and a reasonable margin for free election, the curriculum to be of such a character as to qualify for admission to a graduate school of recognized standing.

4. A college year of 32 weeks of actual instruction.

5. Eight departments, each having at least one full-time teacher of professorial rank.

6. A staff, two-thirds of which are of professorial rank, having had at least two years of study in a graduate school of recognized standing, receiving salaries of \$2,000 a year or more, and teaching not more than 16 hours a week.

7. A productive endowment, beyond all indebtedness, of \$300,000.

8. An annual income for current expenses of \$40,000 a year, at least three-fifths of which is expended for instruction.

9. An expenditure of \$1,000 a year for laboratory equipment and apparatus, and of \$1,000 a year for books and periodicals.

10. An annual or biennial published report of assets, income, expenditure, faculty, curricula, and student body.

The difference between the standards set up by these associations and those established several years ago by the North Central Association vary considerably. The North Central Association requires 15 units of high school preparation for entrance to college; it urgently recommends training equivalent to that required for the Ph. D.; it makes no recommendation concerning the majority of teachers being of professorial rank; it recommends 15 hours of teaching as a maximum, with a prohibition of more than 18; it provides for shaping the last two years of college in the direction of special professional and university instruction; it establishes \$200,000 as a minimum of productive endowment; it makes no statement concerning adequate salaries for the teaching staff, numbers of degrees granted, or entrance requirements; and it establishes a minimum registration of 100 students. No mention is made of this last subject by either of the other associations.

This statement of differences existing between the standards of three associations reemphasizes an unfortunate condition in our

higher education. Since the Bureau of Education has been precluded from establishing standards for higher institutions, it is highly desirable that the various voluntary associations which have done this work with signal success during the last few years should establish common standards and in accordance with them proceed to the work of accrediting colleges and universities. By this means it would at last be possible to secure a dependable list of colleges and universities which fulfill uniform standards.

At the annual meeting in 1920 the national conference committee approved the following statement concerning the items which should be considered "current expenses" in estimating the cost of college instruction:

Expenses are usually classified according to the permanent or temporary character of that for which the money is paid; income and expenditure accounts dealing primarily with day-by-day operations, assets and liabilities accounts with permanent resources, capital, and investment.

Current expenses of a college are thus those providing for administration; care and operation of the physical plant; the cost of instruction; provision for student welfare; supplies that disappear in the using.

Administration may be divided into academic and business, including legal expenses, but both are current.

Plant depreciation is counted as current expense by many accountants.

Cost of instruction includes chapel, gymnasium, library, special lectures and the like, as well as teaching. Money paid out for fellowships, scholarships, and prizes, and for student help, is current expense, even though some or most of it be returned in the form of tuition. The annual excess of loans from loan funds over the amount returned might be counted similarly.

Student welfare includes health service, food, and lodging, but it is well to separate the cost of the last two from other accounts and include deficits only in general current expense.

Supplies used in laboratories and the like are current expenses even though paid for by special fees.

Current expenses do not include additions to endowment and to permanent plant, or temporary expenses in supervising permanent construction or in investing endowment.

#### UNIVERSITY SURVEYS AND THE SURVEY MOVEMENT.

During the last six years the Bureau of Education, by invitation, has conducted surveys of the publicly supported institutions of higher learning in nine States and in Hawaii. The purpose of these surveys has been to set forth the needs of the respective States in higher education and to make suggestions as to what reorganization of administration in the State's system of higher education appeared to be desirable in order to meet these needs. On the whole, the surveys have been welcomed as the expert opinion of impartial observers, and, as a result, unnecessary duplication of effort at two or more higher institutions supported by the State has been greatly reduced or eliminated. Furthermore, with the facts thus made more



available the State institutions have been able to go before their constituents with more convincing pleas for adequate financial support. The surveys have resulted in strengthening the faith of the people in their colleges and universities.

Two surveys have been made during the period of the biennium just closed. The survey in Alabama, from the 11th of March to the 31st of May, 1919, was the first to be conducted in the higher institutions in the Southern States. It was in charge of Dr. Samuel P. Capen, specialist in higher education, Bureau of Education, assisted by Dr. C. D. Jarvis, specialist in agricultural education, Bureau of Education; Dr. W. C. John, specialist in land-grant college statistics, Bureau of Education; and Mr. J. J. Pettijohn, director of the extension division, Bureau of Education. The survey disclosed among the higher institutions in that State considerable duplication of effort, together with low State appropriations for higher education. A summary of the chief recommendations made to the State commission is as follows:

A feature of the Alabama situation which deserves especial attention, not only in that State but in all Southern States, is the condition of the Negro land-grant colleges. In each of the Southern States, as a result of the Morrill Act, two institutions, one for whites and one for Negroes, were founded. The money appropriated by the Federal statutes has been divided between these two institutions. In the case of the white institutions, the State legislatures have appropriated more or less liberal supplementary funds, but the amount appropriated to the Negro institutions has in nearly every instance been so meager that they have been able to make little progress and are not filling the need of higher education among the colored people. The following table shows the source and amount of revenue secured by the Negro land-grant colleges for the year 1918-19:

*Total income of Negro land-grant colleges, 1918-19.*

	Federal fund.	State fund.	Private fund.	Total income.
Agricultural and Mechanical College for Negroes, Ala...	\$21,550.00	\$4,000.00	\$4,335.45	\$29,885.45
Branch Normal College, Ark.....	13,636.36	43,000.00	1,976.18	58,612.54
State College for Colored Students, Del.....	10,000.00	26,500.00	13,566.83	50,066.83
Florida Agricultural and Mechanical College for Negroes.....	25,000.00	11,000.00	59,133.78	70,133.78
Georgia State Industrial College.....	16,666.66	10,796.00	3,843.43	31,306.75
Kentucky Normal and Industrial Institute.....	8,505.50	28,000.00	21,318.78	57,824.28
Southern University and Agricultural and Mechanical College, La.....	22,346.25	16,500.00	34,121.05	43,770.14
Princess Anne Academy, Md.....	10,000.00	7,500.00	12,700.00	30,200.54
Alcorn Agricultural and Mechanical College, Miss.....	39,861.54	8,000.00	24,970.40	42,831.94
Lincoln Institute, Mo.....				
Negro Agricultural and Technical College, N. C.....	16,500.00	22,500.00	27,485.00	56,485.00
Colored Agricultural and Normal University, Okla.....	1,000.00	41,497.00	26,114.03	53,611.03
State Agricultural and Mechanical College, S. C.....	25,000.00	68,208.62	9,383.00	108,346.62
Tennessee Agricultural and Industrial State Normal School.....	12,000.00	28,966.46	34,126.95	75,092.46
Prairie View State Normal and Industrial College, Tex.....	12,500.00	87,730.00	122,668.02	222,898.02
Hampton Normal and Agricultural Institute, Va.....	26,996.02	1,000.00	514,712.13	542,708.15
West Virginia Collegiate Institute.....	10,000.00	51,850.00	27,444.91	89,294.91

### HAWAII SURVEY.

The survey of the school system of Hawaii was carried out by representatives of the Bureau of Education during the period from October 1, 1919, to February 1, 1920. President Parke R. Kolbe, of the University of Akron, was responsible for the investigation of higher education.

Unlike a number of States, the situation in higher education in Hawaii is not complicated by the presence of two or more higher institutions each supported by public funds. There has been only one higher institution, the College of Hawaii, which was founded in 1907, under the provisions of the Morrill Act, as a land-grant institution. In response to a well-defined public demand, the Territorial Legislature in 1920 created the University of Hawaii, including a college of arts and sciences. The occasion for the change was the fact that a college devoted to the usual curricula of a land-grant institution was unable to meet a sufficient number of the needs of students residing in the islands. Partly for this reason, out of the 393 students in Hawaii who, during the last 10 years, have attended institutions of higher learning, only 113, or 29 per cent, have gone to the College of Hawaii. The others have matriculated at various universities in the States, principally in the University of California, Leland Stanford, Harvard, Yale, and Cornell.

Another cause for this situation is the fact that many Americans have close attachments in the States, and they are anxious to give their sons and daughters the benefit of higher education on the mainland. These persons are also largely responsible for the establishment of several private academies from which as yet have come the great majority of students who go to college.

A feature of some interest in this survey was the unusually large per capita expense of the education given at the College of Hawaii. This per capita expense is much greater than that found at any of the higher institutions investigated by the Bureau of Education on the mainland.<sup>1</sup> This situation may doubtless be attributed to the small number of students attending the College of Hawaii and to the increasing cost of higher education in recent years. Nevertheless, with a growing student body the per capita cost is being steadily reduced.

### THREE YEARS OF ATTENDANCE AT 250 COLLEGES AND UNIVERSITIES, 1916-17 TO 1919-20.

In November, 1919, the Bureau of Education sent out a circular requesting the enrollment at colleges and universities for the years 1916-17 and 1919-20, respectively. Two hundred and fifty institu-

<sup>1</sup> This amount varies from \$103.54 per capita at the Alabama Girls' Technical Institute in 1916-17 to \$564.32 per capita at the South Dakota State School of Mines. The median amount per capita is about \$211.

tions, not quite half the total number in the United States, responded. However, the answers represent institutions of all types, large and small. State and private; and although the figures are not complete, they undoubtedly indicate the emergency that the country faces in higher education. The total attendance at these 250 institutions in 1916-17 (the year immediately preceding the war) was 149,533; in 1919-20, 186,864, which is an increase of 25 per cent. As is well known, by far the greatest proportion of this increase was in the freshman class last year. The freshman class in the public institutions exceeded the freshman class of three years ago by 61.82 per cent; in the private institutions by 33.5 per cent; the general average being 46.1 per cent, as against an average increase of but 6.7 per cent in the senior class during the three years. In 88 of the 250 institutions the senior class was reported as being smaller than it was three years ago. Only 34 of them, however, reported a smaller freshman class.

It is interesting to notice the distribution of the increased attendance among the small and large institutions, respectively. Institutions with an enrollment of less than 250 in 1910 increased 38 per cent; those from 250 to 499, 20.2 per cent; those from 500 to 999, 14.5 per cent; those from 1,000 to 1,999, 22.5 per cent; and those of 2,000 or over, 29.4 per cent. The smallest institutions are therefore making the most rapid strides in increased enrollments, while the largest come second. The institutions which previously enrolled from 500 to 1,000 students are growing at the slowest rate.

Since the increase in student attendance at colleges and universities has been tremendous both before and after the war, it may be assumed that the causes are not ephemeral; they are deep and abiding. To be sure, it often seems to professors that an increasing proportion of students are coming to college for no particular purpose except that it is regarded as the fashionable thing to do. On the other hand, there is every evidence that the number of young men and young women who realize that they need a thorough and extended education before they may expect to rise to coveted positions is growing tremendously. In a vague and indefinite way they appreciate the increasing complexity of our modern economic life, with its growing demand for persons with specialized training in every branch of activity. In practical affairs the demand is quite definite and the character of the work is concrete, both of which appeal to the imagination of young men and women entering institutions of higher learning. There seems every reason, therefore, why we may assume that the present tremendous increase in the number of students seeking the advantages of higher education will continue unabated for many years to come.

What shall be done to meet the emergency in higher education? There is only one thing that can be done, and that is to devote to the needs of colleges and universities funds, both public and private, the size of which were never dreamed of a few years ago.

### SALARIES AT COLLEGES AND UNIVERSITIES.

One of the most unfortunate results of the war in the educational world has been the inadequate salaries with which teachers have been compelled to face the mounting cost of living. The problem has been present in the higher institutions as well as in the elementary and secondary schools. In the autumn of 1919 the Bureau of Education gathered complete figures concerning salaries from more than two-thirds of the higher institutions. The results of this inquiry are shown in the following table:

#### *Salaries at colleges and universities.*

##### PUBLIC INSTITUTIONS.

Title of position.	Number of persons.	Minimum salary.	Maximum salary.	Average salary.	Median salary.	Most frequent salary.
Professor.....	2,460	\$300	\$10,000	\$3,126	\$3,000	\$3,000
Associate professor.....	822	300	4,000	2,514	2,500	2,000
Assistant professor.....	1,705	500	4,000	2,053	2,000	1,800
Instructor.....	2,138	300	3,100	1,552	1,500	1,500
Assistant.....	855	75	2,500	801	750	1,200

##### PRIVATE INSTITUTIONS.

Professor.....	3,781	100	10,000	2,304	2,000	1,800
Associate professor.....	357	600	4,500	2,423	2,300	2,000
Assistant professor.....	1,261	75	5,000	1,770	1,800	2,000
Instructor.....	1,810	50	4,000	1,205	1,200	1,300
Assistant.....	574	10	2,000	472	600	800

It thus appears that in the privately supported institutions full professors were receiving on the average \$2,304 per annum, while assistant professors and instructors drew salaries of about \$1,800 and \$1,200, respectively. The average salary, to be sure, in publicly supported institutions is a little higher, but only from \$200 to \$300 for instructors and assistant professors, while full professors at State institutions average only \$3,126.

It is no wonder that comparatively few teachers are being attracted to the field of higher education, or that professors who expected to spend their lives in a teaching career have been induced in large numbers to leave the colleges and universities for more remunerative positions in the business and industrial world.

If we compare the average salaries received by college and university teachers with those received by men engaged in various

trades and manual-labor employments, the results are amazing. For instance, structural-iron workers and railroad-train employees receive more compensation than assistant professors in private institutions and almost as much as those in public institutions. It is more lucrative to be a carpenter or a painter than an instructor in a State institution, while railroad yard employees, machinists, and the lowly hod carriers can look with compassion on instructors in privately supported institutions. Surely it is time for the friends of higher education to demand that the men and women in whose care the best youth of the land are intrusted for four years shall receive a compensation more commensurate with the value of their labor.

At the close of the college year 1919-20 a strenuous effort was made at nearly all higher institutions to increase the salaries of professors and instructors materially. This proved possible to a degree by reason of the successful campaigns for permanent endowments conducted at a large number of privately supported colleges and universities. At some of the State institutions the authorities have been compelled to borrow money in the expectation that the respective State legislatures will later make up the deficit.

#### PRIVATE BENEFACTIONS TO COLLEGES AND UNIVERSITIES.

The increase in student attendance at colleges and universities, accompanied as it is by rising costs of instruction and maintenance, has placed the privately supported higher institutions in a critical situation. The income from the productive endowments is relatively no longer so valuable as it was formerly, and yet in a few brief years the task with which higher institutions are confronted has increased tremendously. The privately supported colleges have realized this situation and a very large portion of them have instituted campaigns for increased endowments. Information from 317 higher institutions, 15 public and 302 private, reveals the fact that during the biennium covered by this survey the total benefactions received by these institutions were \$138,235,770. Of this amount \$44,608,966 was for current expenses, \$23,951,445 for increase of plant, and \$69,675,359 for increase of endowment.

It should be noted that 84 per cent of the funds devoted to increasing the plant and endowment of higher institutions has been raised in the North Atlantic and North Central divisions of the United States. On the other hand, the figures for the three-year period from 1916 to 1919 show that the rate of growth in student attendance in each of the three remaining divisions is greater than it is in the two just mentioned. In other words, in those regions most needing additions to the endowments of their higher institutions the movement to meet the situation yet lags.

Among the notable increases in endowment during the biennium are the following: Harvard University, \$10,205,045; Massachusetts Institute of Technology, \$5,948,292; University of Chicago, \$4,711,620; Yale University, \$3,025,985; Syracuse University, \$3,000,000; Johns Hopkins University, \$2,746,603.

### THE JUNIOR COLLEGE.

The first national conference of representatives from junior colleges assembled at the call of the Commissioner of Education at St. Louis for a two-day session, June 30 and July 1. Thirty representatives from junior colleges located in Texas, Missouri, Michigan, Virginia, Alabama, Arkansas, Minnesota, Iowa, Illinois, and Mississippi responded to the call. The program was subdivided into four divisions: The place and function of junior colleges in the American educational system; the growth and development of the privately supported junior colleges; the development and problems of publicly supported junior colleges; and the curriculum of junior colleges. At the conclusion of the conference a permanent association of junior colleges was effected. The association plans to hold annual meetings hereafter.

The occasion for the conference arose from a variety of reasons. In the first place, the rapid growth of the junior college and of the students attending them made it seem highly desirable that the persons responsible for their administration should confer at some length on the problems confronting them. Furthermore, the recent tremendous growth in the number of students attending all institutions of higher learning indicates the possibility that there will soon become necessary some reorganization of higher education in which junior colleges will be called upon to do an increasing proportion of the work of the freshman and sophomore years for the large universities. Finally, it is becoming increasingly apparent that all students who wish to continue their education after graduation from high school should not be practically required, as at present, to go to a four-year college or university. Many students are either unable or unwilling to attend four-year higher institutions. A large number of them are not well fitted mentally to make the most of a university education. They wish a thorough, but very practical and less extended, type of education. As a prominent dean of a large university said recently, we need a large number of "stopping-off places" in our education above the high school.

The relation between the State universities and a number of junior colleges located within the respective States has been very carefully worked out in Missouri and California. In these two States the junior colleges are largely feeders for the State university, the most of the students from the junior colleges continuing junior and senior

work in arts and sciences at the State university. In Texas two junior colleges have coordinated their work with the State agricultural college. The same thing has been done by one of the junior colleges located in California.

The junior colleges which so far have responded to the demand for a completion school are located chiefly in large cities. For instance, the junior colleges in Detroit, Kansas City, and Chicago are giving technical courses for those students who do not desire to continue their work at large universities. At one of the junior colleges in California a two-year course in agriculture is being given successfully.

The present manifestation of activity on the part of the junior colleges is evidence of the consciousness of the important mission which these institutions will play in the future development of higher education in this country. The overcrowding of the large universities, particularly the State institutions, has raised the question forcefully as to whether it would not be much more convenient and economical both for the State and individual students if the work of the freshman and sophomore years could be done in a number of junior colleges located in various sections of the State. This arrangement would leave the great universities free to develop the technical, professional, and graduate work to much better advantage than is now possible, when so much of the energy of university faculties is consumed in giving instruction, really secondary in character, to freshmen and sophomores.

If some such reorganization of higher education as this is undertaken, an increased number of junior colleges in connection with the public high schools will undoubtedly spring up. In many large cities there is already available all or nearly all the equipment necessary for doing good freshman and sophomore college work.

While the largest field for expansion seems to be with the public junior colleges, junior colleges on private foundation are still more numerous. Many of these were once four-year institutions, but, finding themselves financially unable to do superior work during the whole four-year curriculum, became junior colleges. They have been rewarded by the consciousness of honest work well done, by larger enrollments of students, and freedom from the former financial distress. For such private junior college there is still much room. In 1917-18, 612 higher institutions out of the 672 reported incomes to the Bureau of Education. Of this number 12 reported incomes per student of \$1 to \$49; 66, incomes per student of \$50 to \$99; 82, incomes per student from \$100 to \$149; and 74, incomes per student from \$150 to \$199. It seems perfectly apparent that many, perhaps all, of these 234 institutions would be wise to confine themselves

to the freshman and sophomore years, leaving the more expensive junior and senior work to the larger colleges and universities, which have larger incomes and better faculties. The present increase in the cost of higher education seems to give added weight to this conclusion.

A high quality of instruction is, therefore, a compelling motive in the movement for private junior colleges. If this can be assured, there is no question of the future usefulness of these institutions. The friends of higher education will be glad to welcome them into their circle. The same is true of the public junior colleges. There is a widespread feeling, however, that the administration and methods used in the public junior colleges should really be collegiate and not secondary in character, and that on this account they should be effectively divorced from the secondary schools. With the proper safeguards there is no reason why the work done in the public junior colleges should not be easily the equal of that done in the first two years of our four-year higher institutions.

#### COOPERATION BETWEEN INDUSTRY AND HIGHER INSTITUTIONS.

On March 26 and 27, 1920, a conference of representatives from various industries and from a number of higher institutions interested particularly in technical education met at Drexel Institute, Philadelphia, Pa., in connection with the annual meeting of the Technology Clubs Associated. The occasion for the conference was the growing appreciation of the need of greater cooperation between industry and higher educational institutions. Industry needs technically trained men. The higher institutions need to know what kind of trained men are desired and in what numbers. The conference was particularly timely in view of the extraordinary demands of industry at the present time, which demands are attributed to a variety of causes: the dropping out of industry of men killed or disabled in the war; the falling off of immigration; and the diminution of the supply of trained men sent out from the colleges during the last few years. At the same time the country is being called upon to supply not only its own increasing wants but those of foreign countries not yet recovered from the war.

Definite information concerning the shortage of trained men was gathered by Dr. Hollis Godfrey, president of Drexel Institute, in a large number of personal visits to important industrial firms during several months prior to the conference. At the conference an attempt was made to prepare as definitely as possible specifications in various fields of industry as to the qualifications of men needed. Discussion and subsequent investigation have further brought out the specific needs of various industries which are to be set forth in printed form for the benefit of the colleges.



In order to carry out this plan of cooperation there has been established a council of management education composed of representatives from industries, which is to act in cooperation with a committee of the American Council on Education as the representative of the higher institutions. The industries will maintain the council of management education which, it is hoped, will become "a clearing house for all industrial and educational matters in the country, to promote the mutual understanding of the mutual problems of industry and the college, and to keep perpetual inventory of the educational needs of industry and the ability of the colleges to meet these needs."

The American Council on Education will review the specifications of the council on management education from the point of view of the higher institutions and circulate them among the colleges and universities of the country.

A feature of especial significance in this plan is to develop a type of education in the higher institutions which will not only familiarize men with the technical side of industrial work but which will also prepare them to assume managerial positions in industry. Work of this nature has been sadly neglected at most technical colleges, and young men of great natural ability have been consistently thrust into particular lines of technical work with little opportunity to rise to positions of responsibility and managership, where their services are often greatly needed. Particularly is this true to-day when prices are rising and economic conditions rapidly changing, with much consequent readjustment of industry. For this reason it is planned to induce as many colleges as will do so to give courses in management education. The work is being developed under Dr. Godfrey's direction, at the Drexel Institute.

Related to this general idea of cooperation between industry and the colleges and universities is the work being undertaken by the Bureau of Education for the development in the schools and colleges of an adequate supply of trained men for the automobile industries, on the one hand, and for the building of highways, on the other.

During the past few years the automobile industry has expanded in a marvelous way, creating an enormous demand for technically trained men in many fields. At the same time the greatly increased volume of passenger cars and motor trucks has made more or less obsolete the older types of roads, which are unable to stand up under the strain of present-day traffic.

Four developments in the field of higher education are essential to the successful solution of the problems raised under these new conditions. Technically trained men are needed in great numbers by the automobile industries. In this field courses in colleges are

already fairly well organized to supply the demand. Courses in business and industrial management are urgently needed by men who look forward to positions of administrative responsibility in the automobile industries. This work is as yet only in its infancy in higher institutions and demands immediate attention. In the new state of freight transportation over highways, research into the relative and comparative costs of motor truck transportation with other types of transportation agencies is essential before the proper limits of motor truck transportation can be defined. This work is now being undertaken by the National Automobile Chamber of Commerce. Finally, under the new highway traffic conditions, it is necessary through research to develop types of roads which will withstand the climatic conditions obtaining in various sections of the country. This field of research is properly one in which the colleges and universities should cooperate with the National Bureau of Public Roads and other agencies for research in this field.

These conditions were brought forcibly to the light in a conference of representatives from higher institutions, the automobile industries, and National and State highway bureaus held on May 14 and 15, 1920, by the Bureau of Education. At this conference it was decided to appoint a permanent committee representing these three fields. Through the efforts of this conference and the permanent committee the needs and qualifications for trained men in these fields have been assembled and will be distributed in bulletin form by the Bureau of Education to the colleges and universities of the country.

#### **EDUCATION IN THE AMERICAN EXPEDITIONARY FORCES AFTER THE ARMISTICE.**

It was a number of months after the armistice was signed before it was possible to transport American troops back to the United States. During this time the thoughts of each man in the Army naturally turned to the trade, occupation, or profession which he expected or hoped to pursue after being discharged from the military service. In a large proportion of instances men intended to go back to positions left open and waiting for them in the United States. In other instances, however, the war had definitely severed men from the desire of following their previous occupations and they wished to take up new ones. In either case the necessity or desirability of more adequate preparation for the after-war period appealed to a large proportion of men in the Army. The time which necessarily intervened between the signing of the armistice and the return home offered them a brief opportunity for study and training, if the proper arrangements could be made.

This situation had to a considerable extent been anticipated. Early during the period of America's participation in the war Mr. Anson

Phelps Stokes submitted a memorandum to the War Department outlining a general plan of education for use during the period of demobilization. The plan contemplated the placing of American soldiers at British and French universities and the establishment of schools under the direction of the Army for elementary and vocational education.

That Mr. Stokes's plan was in general practicable had already been demonstrated by the experience of the Army overseas educational commission of the Y. M. C. A. and the committee on education and special training of the War Department. Therefore not long after the cessation of hostilities it was decided to send Brig. Gen. Robert I. Rees to France to take charge of the educational work among the American soldiers.

The Army educational commission which directed the educational work in France, under the general supervision of Brig. Gen. Rees, was composed of Prof. John Erskine, Supt. F. E. Spaulding, and President Kenyon L. Butterfield. These men surrounded themselves with a number of able teachers, a large portion of whom had served previously in the Army overseas educational commission of the Y. M. C. A.

In the post and divisional schools elementary and vocational work predominated. It is perhaps impossible to estimate the number of young men who learned for the first time how to read and write and the number who attended classes where training was given in a large variety of vocations, not to speak of the tremendous number of extension lectures delivered by the vocational specialists who traveled from one division to another.

Facilities for higher education were afforded properly qualified students in British and French universities and at the American Expeditionary Forces University, located at Beaune, in the Côte d'Or. Two thousand and twenty-seven Army students were accommodated at British universities, and about 8,000 at French universities.

Since, however, the resources of the British and French universities were necessarily limited, it at once became imperative, in order to meet the demand, to create a university, which was done with surprising speed. Col. I. L. Rees was made president of the university. Teachers were summoned from the Army, from various civilian employments, and especially from the overseas educational commission of the Y. M. C. A. Many members of the staff had previously been employed as professors and instructors in higher institutions at home, and were consequently very familiar with the work assigned to them. The register of the A. E. F. University gives the following numbers of persons who served on the staff: At Allerey—military, 98; educational corps, 6; total, 105; at Bellevue—military, 18;

civilians, 9; total, 27; at Beaune—military staff, 78; educational staff, 797; total 867; grand total, 999.

The following is a list of the colleges which were established at Beaune, and the number of students registered in each college: Agriculture, 676; arts, 282; business, 1,815; education, 77; engineering, 616; journalism, 138; law, 159; letters, 958; medical science, 144; music, 182; and science, 640; total, 5,685. In addition to these, 338 students were registered at the Art Training Center at Bellevue; 2,353 at the Farm School at Allerey; 705 at the division and post schools at Beaune; and 490 in the short course for teachers; grand total, 9,571. Not included in this number are 6,705 students who enrolled in the College of Correspondence.

No final and complete report of the educational work done overseas during the period of demobilization has been made. That the instruction at Beaune, Allerey, and Bellevue, and the various post and divisional schools was carried on under great difficulties and under circumstances not altogether favorable to extended study is easy to surmise, and is borne out from the testimony of those who were in charge of the work.

### COLLEGE CREDIT FOR MILITARY SERVICE.

After the war the problem of what college credit, if any, should be granted to students who had been in military and naval service perplexed the authorities of higher institutions considerably. In some institutions, notably the technical institutes, it was usually decided not to give any academic credit, since the courses of study were usually definitely outlined, and it was the opinion of the authorities that military service could not be regarded as an acceptable substitute for it.

On the other hand, certain higher institutions permitted students to secure a full year of credit if they returned to college before the opening of the second term and if they completed satisfactorily the work of the second and third terms. Other colleges and universities gave a blanket number of semester credits, depending upon the length of time which students spent in the military service.

### RESERVE OFFICERS' TRAINING CORPS.

On November 27, 1918, it was decided to reestablish in the schools and higher institutions of the country units of the Reserve Officers' Training Corps, which had been replaced early in the autumn of 1918 by the Students' Army Training Corps. This decision was based on the war-taught lesson that in great national emergencies a sufficient number of officers are not available and can not be trained quickly and thoroughly. It is therefore highly desirable that some

system be adopted whereby, with a minimum of difficulty, expense, and interference with civil life, a considerable number of reserve officers may be available for possible future national emergencies.

While many of these officers will be wanted to fill the usual places in the infantry and artillery, the war emphasized the great need for trained men in the various technical branches so essential to the success of a modern army. The colleges and universities contain a large portion of the capable young men in the country; they possess the necessary equipment for technical instruction; and the requisite military instruction can with comparative ease be added to the curricula. It seems, therefore, as if the higher institutions are the logical sources for the recruiting of reserve officers for the Army.

The authorization for the establishment of the R. O. T. C. units is contained in the National Defense Act of 1916 and the supplementary provisions of the Army Reorganization Act of June 4, 1920. Two types of R. O. T. C. units are provided for, junior and senior. The junior units are all infantry units, located in secondary schools, in which basic military drills and practice form the chief work. The senior units, located in the higher institutions, are composed of infantry, cavalry, field artillery, coast artillery, engineer corps, signal corps, motor transport corps, and ordnance department. Infantry, cavalry, and field artillery units must be composed of at least 100 physically fit students; all other units, 50 each.

At the close of the academic year 1919-20, R. O. T. C. units had been located in 142 colleges and universities. The following is a table of the units and the number enrolled in each of them:

Senior units.	Enrollment.	
Infantry .....	119	32,390
Cavalry .....	10	948
Field artillery .....	20	4,348
Coast artillery .....	18	2,687
Engineer corps .....	19	1,948
Signal corps .....	11	704
Motor transport corps .....	8	461
Ordnance department .....	3	201
Total .....	-	43,687

Junior units of the R. O. T. C. have been established in 39 essentially military schools of secondary grade, where the students receive a somewhat larger amount of formal military training than is customary in the colleges and universities. Junior units have also been located in 49 public high schools and 19 private secondary schools. The total enrollment of students in the junior units is 44,777. With the removal in 1920 of the limitation on the number of officers eligible for duty with the R. O. T. C., it becomes practicable to increase materially the number of units located in secondary

schools. During the year just closed a total of 388 officers were located with units of the R. O. T. C. at colleges and secondary schools.

As many of the small colleges do not possess a large amount of technical equipment, it has proved wise to locate infantry units in most of them. In the larger colleges and universities, however, the units have been diversified to suit the needs of the service and the local facilities. The War Department has undertaken to furnish teaching material to those departments giving scientific courses recognized as having military value. This material is in the nature of problems which in addition to their military value are of importance in civil life.

Naturally problems have arisen in the conduct of the R. O. T. C., and a number of conferences have been held between representatives of the War Department and college executives at which the difficulties have been discussed and solutions attempted. For instance, the amount of college credit given for the military courses is left wholly to the colleges. The War Department proposes to prepare a standard set of tests for use in the various units. It has been recognized that the success or failure of R. O. T. C. units depends very largely on the character of the commissioned officers detailed to instruct the students.

It is thought that the maximum number of students who will complete the advanced course (the last two years) of the senior division, and thus become eligible for commissions in the Officers' Reserve Corps, is about 5,000. Inasmuch as the R. O. T. C. has been in active operation but three years, only 982 students completed the advanced course in June, 1920. Of these, 483 were 21 years of age or older, and are eligible for commissions. The number of students who complete the prescribed work of the advanced course and apply for commissions in the Officers' Reserve Corps will, of course, constitute the real test of the R. O. T. C. in the colleges and universities. Only experience will demonstrate the extent to which the R. O. T. C. is meeting this national need.

#### **EDUCATIONAL CONCESSIONS TO CHILDREN OF ARMY OFFICERS AND ENLISTED MEN.**

In connection with its studies on the cost of living, Army pay, and the amelioration of the financial difficulties of persons in the military service, the morale branch of the War Plans Division of the General Staff has undertaken to make a special inquiry into the scholarships and special funds which may be available in colleges and universities for use in whole or in part by deserving children of Army officers and enlisted men. The motive of this inquiry arose partly on account of the uncertainty of residence of Army people

and the consequent lack of familiarity which they may have concerning the educational advantages of particular institutions of higher learning. On account of the peculiar conditions, including uncertain residence, to which Army people and their children are subject, a number of colleges and universities expressed themselves as willing to offer exceptional concessions to them. These concessions include free scholarships, opportunities for earning expenses, reductions of fees to the same basis as for legal residents, and loans from student loan funds, which will enable such students to earn all or a large portion of their tuition and living expenses.

The morale branch also secured information from as many Army people as possible concerning the number of young persons desiring to avail themselves of these exceptional advantages and the character of the course of study desired. The information was then made available to those persons in a small bulletin, which included a résumé of the entrance conditions, tuition, fees, cost of living, and courses of study at these colleges and universities.

#### THE CARNEGIE PENSION AND INSURANCE SCHEMES.

On April 22, 1918, the trustees of the Carnegie Foundation divided the teachers of the associated institutions, admitted to the benefits of the retiring allowance system sustained by the foundation, into three groups:

A. Teachers in the service of associated institutions on November 17, 1915, and who reach the age of 65 on or before June 30, 1923.

B. Teachers who were in the service of associated institutions after November 17, 1915, and who will not have reached the age of 65 on June 30, 1923.

C. Teachers entering the service of associated institutions after November 17, 1915, and participating in the contributory plan of annuities maintained by the Teachers' Insurance and Annuity Association of America.

Arrangements were made to pay to persons in groups A and B retiring allowances, varying in amount according to the average salary received during the five years previous to retirement.

Teachers who enter the service of the associated institutions after November 17, 1915 (the date on which the trustees of the Carnegie Foundation passed resolutions looking toward the adoption of a contributory pension plan), and teachers in institutions admitted in the future to the associated list and who are participants in the contributory plan of annuities maintained by the Teachers' Insurance and Annuity Association of America are eligible to the following privileges:

1. There is no fixed age of retirement, since the teacher holds a deferred annuity contract of which he may avail at such age as may be agreed upon by the teacher and his college.

2. The amount of the retiring allowance is based upon the joint contributions of the teacher and his college and their accumulations.

3. The trustees of the foundation have adopted resolutions which, without imposing a legal obligation upon the foundation, state its intention to provide from its income, if necessary, such amounts as may be required to secure to teachers in the associated colleges and universities an average return of  $4\frac{1}{2}$  per cent on the payments made by them to the Teachers' Insurance and Annuity Association of America for the purchase of deferred annuities—said sums to be paid at the time of retirement or in case of death.

4. The foundation will grant to such teachers disability allowances upon the following terms:

(a) Disability shall be interpreted to mean total permanent disability as certified by a medical examiner designated by the foundation.

(b) To be eligible to a disability allowance the teacher must have contributed for not less than five years toward an old age annuity and must have been during this period in active service.

(c) When retired on the ground of disability the teacher will assign his annuity policy to the foundation.

(d) The foundation will provide an annuity of two-thirds the amount the teacher would have obtained if he had continued to age 65 average contributions equal to the average of the five years immediately preceding his disability. The annuity payments will continue for life, or in case of death, until the accumulation to the credit of the teacher has been returned to his estate. Annuity allowances will be limited to a maximum of \$3,000, and are subject to discontinuance in case of the annuitant's recovery of health. In case of such recovery the unexpended portion of the contributions made by and for the teacher and their accumulations will remain to his credit.

(e) This disability benefit will not be available, without further action of the trustees of the foundation, to those entering the associated institutions after January 1, 1938. By that time it is believed that accurate information will be available, so that the disability benefit can be included in the regular annuity contract at a rate approximating its actual cost. This can not be done until such information is secured from the experience of teachers in the matter of disability.

5. These benefits are not applicable to teachers in professional departments whose principal work is outside the profession of teaching.

In these provisions it may be noted that the corporation guarantees a return of not less than  $4\frac{1}{2}$  per cent on payments made by the teachers in the associated institutions to the Teachers' Insurance Association. Furthermore, it grants disability allowances after five years of service upon the conditions stated in the rules. The corporation also has provided \$1,000,000, the income from which is available to take care of the overhead expense of the association. Inasmuch as the association has no agents, there are no agency fees to be charged to the overhead expenses.

Other than the connections just mentioned the Teachers' Insurance and Annuity Association is a corporation entirely distinct from the Carnegie Foundation. By the conditions of its charter certain distinctions and discriminations are made between institutions of college or university grade. The Teachers' Insurance and Annuity



Association, on the other hand, is incorporated under the statutes of New York to write insurance and annuity policies suited to the college and university teachers of the three English-speaking countries of North America. It will make no discrimination on account of denominational or State control, nor on account of educational standing.

By January 15, 1920, 29 institutions, 23 of which belonged to the foundation's list of 76 associated institutions, had accepted the plans proposed by the Teachers' Insurance and Annuity Association for the provisions of old-age annuities by the joint cooperation of the teacher and his college. In some of these institutions participation in the old-age annuity on the part of those entering after a certain date will be obligatory to the extent of an agreed minimum. In most institutions, however, participation in the contributory plan is optional.

The basis of participation in the contributory plan which the trustees of the Carnegie Foundation voted to accept from associated institutions, November 20, 1918, is as follows:

(a) Each full-time professor, associate professor, assistant professor, or officer of equivalent rank in the service of associated institutions, who does not enjoy the privileges given under the noncontributory plan now in operation, shall contribute annually in monthly installments 5 per cent of his salary toward an old-age annuity contract in the Teachers' Insurance and Annuity Association. In the case of institutions admitted hereafter to the associated list this requirement shall apply to all professors, associate professors, assistant professors, and officers of equivalent rank admitted to the service of the institution after acceptance of participation in the contributory plan.

(b) Each associated institution shall pay a corresponding 5 per cent in the case of any such contributing professor, associate professor, assistant professor, or officer of equivalent rank, provided that the institution shall be under no obligation to begin its payments before the teacher begins his, or to make annual contributions in excess of those made by him.

(c) Each institution shall make a like contribution in the case of any teacher below the rank of assistant professor who has voluntarily accepted a participation in the contributory plan and who has had not less than three years of service as a teacher in a college, university, or technical school.

#### THE PLACE AND FUNCTION OF FACULTIES IN UNIVERSITY GOVERNMENT AND ADMINISTRATION.

An important report on this subject was published in the bulletin for March, 1920, of the American Association of University Professors.

Part I of the report deals with problems and principles of university government and administration.

What part should the faculty play in the determination of a university's fundamental educational policies; with regard, for example, to the establishment of new educational enterprises, such as new colleges, schools, and depart-

**ments of instruction?** What part should the faculty have in the selection of deans and president, in the selection and promotion of its own members, and in the making of the annual budget? Should there be explicit provision for representation of the faculty on the board of trustees by way of members elected by the faculty? Or should the faculty be represented by way of faculty conference committees advisory to the board? What is the best form of **departmental administration**; by permanent headship, or by a committee of professors with a chairman chosen for a limited and short term? \* \* \*

Says the chairman of the committee:

There is room for debate and difference of opinion in regard to specific features in the several details, but \* \* \* there is no reasonable doubt as to the validity of the main principles involved. These are faculty power of initiative and right of consent in all matters of educational policy, faculty participation in the nomination of its own members and officers, provision for frequent interchange of views between trustees and faculty, openness of the faculty to suggestions of educational policy from the trustees; but the responsibility for the use of moneys and the final election of administrative officers and members of the teaching staff to remain with the trustees, since they are the custodians of the public interest in the care and administration of the property and income provided for the conduct of higher education and research.

Part II contains specific recommendations, and an appendix summarizes data in regard to current practice in the principal colleges and universities of the country. The specific recommendations deal with the relations of boards of trustees and faculties, the president and the faculty, deans and faculties, and faculty and budget making, the faculty (per se), and the departments. In this connection the report states:

There should be a recognized mode of procedure for the joint determination, by trustees and faculties, of what is included in the term "educational policies." It is difficult to frame in advance a completely inclusive definition of this term. Clearly, educational policies include the following: Standards for admission and for degrees; determination of the proper ratio between numbers of students, of courses and of instructors, respectively; numbers of teaching hours; the establishment of new chairs and departments of instruction, of new curricula and courses; the organization of new administrative units; the promotion of research; provision for publication; the abolition of any established form of educational or research activity; the distribution of income between material equipment and personnel. In the case of doubt or dispute as to whether a given matter is a question of educational policy, the matter should be decided by conference between trustees and faculty representatives and only after opportunity has been given for the faculty to consider and decide its views upon the matter. \* \* \*

The fundamental principle that your committee subscribes to, with one exception, is that in all cases the faculty should have a recognized voice in the preparation of the annual budget. \* \* \*

The president should, however, have the power to make independent budgetary recommendations to the trustees in order to meet special contingencies—such as to fill vacancies on the staff occurring during vacation, to raise a salary to meet an offer from another institution, or to secure a good man; but he should report his action in such cases at the earliest opportunity to the university budget committee. \* \* \*

The faculty should be the legislative body for all matters concerning the educational policy of the university.

Among the standing committees of the general faculty should be a judicial committee of a small number of members, one or more to be elected annually by the faculty to serve for a definite term (or the whole committee to be elected by the faculty when need arises). In the event of the proposed dismissal of a member of the instructing staff, on indefinite tenure of appointment or before the expiration of a definite term of appointment, the member in question should have the right to full investigation by the judicial committee of the grounds alleged for the proposed action. Failure to sustain the charges before the committee should estop dismissal. The judicial committee should report its findings to the president and the board of trustees.

It is stated in conclusion that the committee's information indicates a growing tendency in the better class of institutions to accord to the faculty official participation in the selection and promotion of its own members, in the nomination of deans and presidents, and in the preparation of the budget, as well as in the determination of educational policies; that often trustees who are accustomed to autocratic methods in business and industry oppose a larger faculty participation in university and college government; that in every case where faculty self-government has been tried out for a term of years and under fair conditions, as notably, for example, at Oberlin and Reed Colleges, it has proved a signal success; that where, in the absence of formal and statutory provision therefor, the substance of democratic faculty government is in operation there are usually to be found contented and progressive faculties, but that without the legal form to protect it the substance is liable to vanish with a change of administration.

#### GENERAL INTELLIGENCE TESTS.

One of the subjects causing an immense amount of discussion among leaders in colleges and universities during the past two years is that of general intelligence tests. The subject was brought into prominence by the extensive use of these tests in the American Army during the World War. The Army tests were the work of a committee of seven well-known psychologists who were called into the service of the Surgeon General's office in the summer of 1917. The tests were first given an official trial in four of the cantonments in August, 1917. Afterwards they were revised and extended to the whole Army. At the signing of the armistice the total number of men examined in the Army was 1,726,966, of whom 41,000 were officers. As a result of the information obtained through these tests over 7,800 men were recommended for immediate discharge as unfit for military duty; 10,014 men for labor battalions or other service organizations; and 9,487 others for further observation and preliminary training. Nearly 30 per cent were found to be unable to "read and understand newspapers and write letters home."

During the war the Army intelligence tests were tried in a number of units of the Students' Army Training Corps scattered in various sections of the country. The results obtained, although by no means exhaustive, seemed to coincide so closely with conclusions regarding the ability of students reached in the usual ways that both military and academic authorities gradually conceded the great value of the intelligence tests. Assuming the approximate accuracy of the results gained from the tests, it also quickly became apparent that the general level of intelligence demonstrated by college students was so much superior to that displayed by the enlisted men in other sections of the Army as to justify the assumption made at the beginning of the Students' Army Training Corps that college students were especially well qualified for training as officers in the Army.

The introduction of general intelligence tests on such a wide scale in the Army set the whole college world to discussing the question as to whether these tests should not be substituted in whole or in part for college entrance examinations and certificates. At Columbia College, New York City, intelligence tests have been instituted as alternative forms of entrance examination. In the fall of 1919, 200 young men, many of whom would probably not have gone to college at all if they had been required to meet the usual entrance requirements, entered the freshman class by way of the intelligence examination. These young men did excellent work during the year. At a number of other higher institutions students who enter by certificate or by the usual entrance examinations are also being required to take the general intelligence tests.

During the two years just closed the intelligence tests have been used extensively in higher institutions throughout the country. In May, 1920, the Bureau of Education circulated a questionnaire asking for information concerning the progress of the tests in colleges and universities. Of the 228 institutions which replied, 124 had used some form of the tests. Not included in this number, however, are 47 additional colleges and universities which are known to have given the examinations. It is probably safe to estimate therefore that about 200 colleges and universities have used them for one purpose or another.

Prof. L. L. Thurstone, of Carnegie Institute of Technology, is chairman of a committee on intelligence tests for the Society for the Promotion of Engineering Education. Under his direction 48 colleges are participating in a series of five special tests and a general intelligence examination given at the time students enter college. Prof. Thurstone describes the work which the committee has undertaken as follows:

We collect considerable information about each student at the time of admission. This information includes such items as age, high-school scholarship,

high-school principal's estimate, college-entrance examinations, the special tests prepared for this investigation, and an intelligence examination. All of this information is tabulated and filed for safe-keeping. When the students progress in their engineering course they will separate in ability. Some will drop out entirely, others will remain as mediocre students, and others will excel. When we have their freshman scholarship available we compare these marks with each type of information that was available at the time of admission. In this way we are able to state the relative predictive value of each type of test with special reference to freshman scholarship.

In order to remove the personal equation as much as possible in the interpretation of our results, we calculate the correlation coefficient for freshman scholarship and each test. If this coefficient is high, the test has predictive value; if it is low, the test is not useful for predicting freshman scholarship. Of course we must realize that freshman scholarship is by no means a final criterion of engineering ability. But we feel justified in using it until other more complete criteria become available. \* \* \*

We have sent out 10,275 sets of test papers and we have reports for 7,000 students on these tests. These records represent 39 colleges that have reported to date.

We wish to emphasize the fact that in order to complete this experiment it is necessary to check up the test scores with reliable measures of engineering success. We now have measures of freshman scholarship. That is a good criterion as far as it goes. But we must continue to check up the tests with the same 7,000 students on their scholarship when they become sophomores, juniors, and seniors. We must also check up the test scores with their engineering success measured in various ways. Then we shall be able to say what kind of test should be given in advising a boy about taking up engineering as a life work.

The purposes for which the tests may be used are, therefore, by no means confined to admitting to or rejecting students from college. Indeed, it is becoming clear that other uses, including the directing of a student's college education, the classification of students into sections, the elimination of failing students, and the assisting of students in the choice of a vocation, are of equal if not greater importance. As yet, however, very little has been done in colleges and universities to make use of the information which has been secured from the examinations. In nearly every institution there is a great need for an organization such as will attack the problem systematically and scientifically, in order that the time of every student may be spent more wisely than is now possible in colleges and universities.

Prof. Edward L. Thorndike, of Teachers' College, Columbia University, who is known as one of the foremost champions of the intelligence tests, reaches the following conclusions concerning the value which may result from the extensive use of intelligence tests in higher institutions:

The facts lead me to think that, hour for hour or dollar for dollar spent, the psychological test for intellect is preferable to the conventional tests for scholarship.

The psychological test gives a somewhat broader and more thorough sampling of the candidate's powers. The difference may be illustrated by the case

of a boy who, after graduation from high school, works in an office or shop for a year or so and then goes to college. He is probably better fitted for college, but is less fit to pass the conventional entrance examinations. The conventional test gives, in particular, a weight to knowledge of foreign languages and of mathematics out of proportion to their significance for success in college and professional work.

The psychological test measures the ability and promise of the candidate more and the amount and quality of his schooling less than the conventional tests for scholarship. Educational advantages doubtless count in the former, and native ability counts in the latter; but, speaking roughly, the one tests primarily the candidate's own reactions to life; the other tests an admixture of these with the skill and assiduity of his teachers, the fiscal status of his parents, and the educational advantages of his community. The psychological test, for example, favors gifted boys with poor advantages. The conventional examination favors rich boys with gifted tutors.

The psychological test acts more positively to select for ability. It advertises the fact that the college will concede to intellect. The conventional examination acts too much negatively, forbidding or at least delaying entrance to those who lack this, that, and the other special ability. Even the short experience at Columbia College seems to prove beyond question that gifted youths whose college education is desirable in their own interest and for the common good will enter college by an intelligence examination who could not enter college by the content examination.

### THE NATIONAL RESEARCH COUNCIL.

In April, 1916, at a time when the relations with Germany had grown very strained, the National Academy of Sciences offered its services to the President. The President accepted the offer and requested the academy to organize the scientific and technical resources of the Nation on the most effective basis as a precautionary measure in the event of future war. The academy at once established, under the provisions of its charter, the National Research Council, which undertook to carry out the objects in mind. These objects were set forth clearly in an Executive order May 11, 1918, which at the same time served as a request for making permanent the work which the council had already so well begun:

In general, to stimulate research in the mathematical, physical, and biological sciences, and in the application of these sciences to engineering, agriculture, medicine, and other useful arts, with the object of increasing knowledge, of strengthening the national defense, and of contributing in other ways to the public welfare.

To survey the larger possibilities of science, to formulate comprehensive projects of research, and to develop effective means of utilizing the scientific and technical resources of the country for dealing with these projects.

To promote cooperation in research, at home and abroad, in order to secure concentration of effort, minimize duplication, and stimulate progress, but in all cooperative undertakings to give encouragement to individual initiative as fundamentally important to the advancement of science.

To serve as a means of bringing American and foreign investigators into active cooperation with the scientific and technical services of the War and Navy Departments and with those of the civil branches of the Government.

To direct the attention of scientific and technical investigators to the present importance of military and industrial problems in connection with the war and to aid in the solution of these problems by organizing researches.

To gather and collate scientific and technical information at home and abroad, in cooperation with governmental and other agencies, and to render such information available to duly accredited persons.

The membership of the council consists of representatives from the Government, national and technical societies, and others who can assist materially in promoting the objects of the council.

The council conducts its work through two kinds of divisions—general relations and divisions of science and technology. Under the first is included the Government division and the divisions of foreign relations, States relations, educational relations, research extension, and research information service. Under the second heading are grouped the divisions of physical science, engineering, chemistry, and chemical technology, geology and geography, medical sciences, biology and agriculture, and anthropology and psychology.

During the war the council was necessarily absorbed in the solution of technical war problems. Says Dr. Vernon Kellogg, chairman of the division of educational relations:

Under the general directions of the council, great centers of research throughout the country were kept occupied with Government work. In more than a score of leading universities the scientific laboratories gave feverish attention to problems of military optics, of ordnance, munitions, topography, and food conservation. The council also directed investigations relating to gun defense, dyes, high explosives, smoke screens, wireless telegraphy and telephony, fuel substitutes, detection of submarines, testing of materials, and pathological and medical problems. Associated with the council was also the group of psychologists whose work revolutionized the methods of organizing Army and Navy personnel.

With the close of the war the council rapidly completed the war work in which it was engaged, and on June 30, 1918, severed its direct connection with the Government which it had maintained through the Council of National Defense. Even previous to this date, February 11, 1919, the Council of the National Academy of Sciences adopted a program of activities which the National Research Council has been pushing forward vigorously.

In order to go on with its program, however, it was first necessary to secure adequate financial support. The Carnegie Corporation of New York has authorized an appropriation of \$5,000,000 to the National Academy of Sciences for the use of the academy and the National Research Council. A part of this sum is to be devoted to the erection of a suitable building in Washington as a home for the academy and the council, and the remainder to a permanent endowment. A building has been secured for present headquarters in Washington.

On April 9, 1919, the Rockefeller Foundation placed at the disposal of the council \$500,000, which was to be used during the five years from May 1, 1919, to June 30, 1925, for the maintenance of a system of national research fellowships in physics and chemistry. The General Education Board granted the council \$25,000 for the preparation of mental measurements of school children, and \$10,000 for the carrying on of a survey of the research conditions in the colleges and universities of the country.

Speaking of the work of the council since its reorganization for peace-time work, Dr. Kellogg again states:

We need a great cooperative scientific investigation of food and nutrition; the National Research Council has put it under way. We need far more study on a very wide scale of the problems connected with the preparation and use of fertilizers, of ceramics, of alloy steels, of synthetic drugs. The council has begun this study. There are great scientific problems of direct bearing on our national well-being in connection with public health and sanitation, with forestry, with intensive agriculture. And there are many others which may not at the moment seem to have so tangible a relation to practical affairs, the solution of which may nevertheless serve as the indispensable fundamental basis for future practical use.

The work of the division of educational relations is of particular consequence to higher institutions. This division intends to encourage research along scientific and technical lines throughout the colleges and universities. In order to accomplish this object it was first necessary to secure comprehensive and complete data from colleges and universities concerning the research opportunities and activities at the various higher institutions. This information has been secured by returns from circular inquiries and by personal visits by members of the council's staff. With this information at hand the division is in a position to carry forward its campaign for increased opportunities for research and the training of research workers in the educational institutions.

Ex-President Jacob G. Schurman, of Cornell University, states the situation concerning the necessity of research in colleges and universities as follows, in his annual report for 1918-19:

The absolute necessity of supporting scientific research, and more particularly the necessity of supporting such research in our great universities, is shown by the history of virtually every great achievement in applied science. Consider, for example, the recent remarkable developments in the field of radio-telegraphy and telephony, which have played so important a part during the war, and which promise to be of still greater importance in peace. As a means of communication over great distances the work was begun by Marconi and continued by numerous other able engineers, who in most cases were not university men. But the discovery of electric waves and the study of their properties, which laid the scientific foundation upon which all applications of these waves must rest, were due to such men as Kelvin, Maxwell, and Hertz, professors in the Universities of Glasgow, Cambridge, and Bonn.



One of the most important aids to the surgeon in the treatment of wounds is furnished by the X rays. As a result of the power to diagnose to be possible by their use, thousands of lives have been saved during the last five years which would otherwise have been lost. Great credit is due to the able surgeons and engineers who perfected the necessary apparatus and used it under the difficult and dangerous conditions of war. But the discovery of X rays is due to Roentgen, a university professor, and came as the culmination of a series of investigations by other university men like Crookes, Hittorf, and Lenard. Without their work in a field which then seemed to have no possible application to practical life, no one would even have thought of the possibility of such an aid to surgery.

Every great achievement in applied science has essentially the same history. First comes discovery and progress in pure science, then its application to some useful purpose. There can be no applied science unless there is science to apply. Pure science without useful applications is incomplete; but without a basis of pure science applications are impossible.

Coordination of research work at colleges and universities and other research agencies becomes highly important when it is realized that in the present chaotic conditions in this field virtually the same research problems may be in process of solution at two or more places, while others equally important may be largely or wholly neglected. By bringing to notice those research problems which need to be attacked and by acting as an agency to coordinate the work on them the National Research Council will be fulfilling a very important rôle in higher education.

#### REPORT OF THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING ON TEACHER TRAINING.

A plea for the greater recognition of the teaching profession is made in the report on "The professional preparation of teachers for American public schools," issued in 1920 by the Carnegie Foundation for the Advancement of Teaching. The report originated in an investigation of teacher-training facilities in Missouri, as requested by the governor of that State in 1914, but the study of the Missouri situation was found to involve a comprehensive examination of the entire teacher-training problem in the United States, and the findings in the Missouri survey are regarded by the foundation as furnishing a valuable index to conditions existing in other parts of the country. According to the report the teaching profession should be placed upon a collegiate footing and organized under a single competent direction as a part of the State university, parallel with medical, legal, engineering, and other similar divisions of higher education. Says the report:

What is really needed is not arbitrary distinctions between normal schools and colleges but an enlightened administration of the State's entire teacher-training function exercised from a single directing body equipped to prepare teachers for all schools as thoroughly as possible.

Normal schools should drop that name, and as professional colleges of education should become an acknowledged part of the greater university whole, simply because they are a part of the State's system of higher education, which is all the term "university" now implies. We would thus secure a unified and centralized authority prepared to deal in a consistent and efficient manner with the State's largest problem in higher and professional education.

The report urgently recommends a closer organization of all higher education within the respective States; the employment of married women in the schools, on the ground that whatever objections may be urged against married teachers are outweighed by the obvious advantage of having in educational work the leading women of the community; and the elimination through equal standards of preparation and ability of the current distinction in prestige between elementary and secondary school-teachers.

### REQUIREMENTS FOR THE DOCTOR'S DEGREE.

The Bulletin of the American Association of University Professors for January-February, 1919, contains the recommendations of the association's committee on requirements for the Ph. D. degree. The following recommendations are excerpts taken from the committee's report:

1. There should be a minimum time requirement for the doctors' degree, to be disregarded only in the most exceptional cases. Not less than three years should be thus required, of which at least one year should be in the institution granting the degree.

2. (a) Organized summer school work should be recognized as part of the preparation for the doctorate when conducted on the same plane as work in the regular session, and when of distinctly advanced character. (b) Work in other institutions of substantially equal rank should be accepted at par value. (c) Approval should be given to work done in Government bureaus or similar institutions when a careful scrutiny of the situation indicates that conditions are substantially equivalent to those of properly organized university work. The committee believes that such work would often have to be accepted at some discount, and to a limited extent. (d) The committee has expressed approval of the encouragement of migration, but no satisfactory methods for promoting it have thus far been discovered.

3. A sharp distinction should be made between admission to the graduate school and admission to candidacy for the doctor's degree. The first should depend upon the presentation of a standard bachelor's degree, or in the case of foreign students of some unquestionable equivalent. Admission to candidacy should involve in addition written assurance by the head of the department in which the candidate desires to do his major work that he deserves the opportunity to secure the degree.

4. The committee disapproves the acceptance of correspondence work as satisfying any part of the requirements for the doctor's degree.

5. French and German should both be required of candidates for the doctorate, efficiency to be tested at least one year before the conferring of the degree. Other languages will often be necessary also. \* \* \*

8. The doctor's degree should be conferred only upon persons of unusual intellectual endowment with unequivocal capacities for research.

9. In general it may be said that the committee favors the publication of at least so much of the thesis as would adequately represent the methods and results. The committee is divided in its opinion regarding the requirement that the university should share the cost of publication with the candidate.

10. The examination: More than one department should always be represented on the examining committee. Both oral and written examinations should be given. Preliminary examinations should be held at a considerable period in advance of the final examination as a protection both for the candidate and the institution. The final examination should cover the capacities of the candidate in the widest possible way, with distinct emphasis, however, upon the subject of the thesis.

### THE AMERICAN COUNCIL ON EDUCATION.

The American Council on Education was established early in 1918 at a time when the war situation was perplexing college and university executives. Its purpose was to provide a channel through which the Government and the higher institutions of the country could approach one another in an informal way for the most effective use in the Great War of the resources and personnel of the colleges and universities. The council was composed of representatives from the great national educational associations. It established headquarters in Washington where, in addition to serving as a mediating agency between the Government and higher institutions, it undertook a variety of activities, among others to stimulate attendance at higher institutions, until the inauguration of the Students' Army Training Corps removed the necessity for this campaign.

The council also early interested itself in the relations of American higher institutions with similar institutions among the allied countries. The purpose was through a widespread exchange of information concerning the activities, condition, and spirit of American and foreign higher institutions, respectively, to build up a greater and more intelligent appreciation of one another. One of the ways in which this ideal was carried out was through the visit in the autumn of 1918 of the British Educational Mission. This mission was composed of a distinguished body of university scholars, who visited a number of centers of higher education in the Eastern and Middle Western States, where they conferred with American college and university scholars. The council had charge of the entertainment of the mission.

The close of the war raised the question as to whether the council ought to be continued. A meeting was held in Cambridge in December, 1918, where it was decided that there was continued need for such a central agency in order to unite the counsel of the several national educational associations on numerous post-war problems. Accordingly, a plan of financing the organization through membership fees from the constituent organizations and from the col-

leges and universities was adopted. In May, 1919, Dr. Samuel P. Capen was chosen director of the council. He began his duties in the following December.

The character and objects of the council are set forth by the director as follows:

The American Council on Education is the central organization in which the great national associations are represented. Its general object is to promote and carry out cooperative action in matters of common interest to the associations and to the institutions composing them. It has three classes of members, constituent, associate, and institutional. The constituent members are 16 national educational associations. Each is represented by three delegates who vote as a unit at meetings of the council through a designated person. Associate members are educational or scientific organizations having interests related to the work of the council. Associate members may send one representative each to the meetings of the council without right to vote. Institutional members are colleges, universities, professional and technical schools, contributing not less than \$100 a year to the treasury of the council. Each may be represented by one delegate at meetings of the council without right to vote.

Sixteen national educational organizations have become constituent members of the council and 11 associate members. There are 120 institutional members. The council performs a large part of its work through committees. Considerable attention has been devoted to the educational features of the various bills now in Congress, particularly the Smith-Towner bill. Digests of arguments for and against this bill were circulated among the higher institutions and an attempt made to secure from them a referendum of opinion on this measure.

A committee of the council has also prepared tentative plans for the admission of holders of French degrees and certificates to American institutions. If this basis is accepted by the colleges and universities, it will be a step in standardizing the treatment of foreign students. The council also proposes to take up the same matter respecting degrees and certificates from other foreign countries.

Early in 1920 the Association of American Colleges transferred to the council the administration of the scholarships granted by American colleges to French girls and the selection of the young women who attend French institutions on scholarships provided by the French Government. In 1919-20, 182 French girls were attending higher institutions in this country on scholarships and 20 American women went to French lycées on scholarships. The French Government has also recently offered 16 graduate scholarships and fellowships at the Universities of Bordeaux and Toulouse to American young men. The council will select the candidates who will be awarded these scholarships and fellowships.

### THE INSTITUTE OF INTERNATIONAL EDUCATION.

The Institute of International Education was established February 1, 1919, by the Carnegie Endowment for International Peace. Its aims, as set forth in the first annual report of the director, are "to develop international good will by means of educational agencies and \* \* \* to act as a clearing house for information and advice for Americans concerning things educational in foreign countries and for foreigners concerning things educational in the United States."

An administrative board, composed of representatives from the colleges and universities from the international fields of education, such as law, medicine, finance, journalism, and commerce, is responsible for the policy of the institute. The institute has established close relations with the American Council on Education in this country and with representatives of the American University Union, the University Bureau of the British Empire, the Office National des Universités et Écoles Françaises, and other organizations abroad.

In carrying out the purpose for which it was founded the institute arranged for a number of foreign scholars to visit all parts of the United States. It has also assisted materially in the entertainment of other scholars and educators, such as the Chinese Educational Mission, which spent several months visiting schools and colleges of all types in the United States. In addition to this, the institute circulated an inquiry among the faculties of higher institutions in France and Great Britain requesting information as to what persons would be willing to accept temporary appointments at American colleges or universities. From the replies which were received a list of available persons was compiled and distributed to higher institutions in the United States.

On the other hand, an attempt is also being made to locate American professors abroad in temporary appointments by paying the traveling expenses of a selected number of professors who are on sabbatical leave from their institutions.

In making available information about educational conditions in various countries for the benefit of students the Institute of International Education has already published two very useful and valuable handbooks entitled, respectively, "Opportunities for Higher Education in France" and "Opportunities for Graduate Study in the British Isles." At the same time information has been obtained and distributed regarding the fields of study open to American graduate students at British universities and the number of such students who can be accommodated at each institution.

All these activities will undoubtedly do much to build up a spirit of cooperation among the educated men and women of the world.

The exchange of foreign and American professors and students on a fairly large scale is bound to produce a more catholic spirit and a more tolerant international attitude, which, as everyone knows, is the basis of international peace.

In this connection it should be noted that the Committee on Friendly Relations among Foreign Students, in December, 1919, issued a directory of foreign students in the United States, which contained the names of 6,636 students attending 466 of the higher institutions in this country.

### INTERNATIONAL FELLOWSHIPS AND SCHOLARSHIPS.

The Institute of International Education has also lent its encouragement to the establishment of fellowships and scholarships for the exchange of students between the United States and foreign countries. In addition to the provisions made for the exchange of French and American students already mentioned, there are a number of other similar arrangements. For instance, the American-Scandinavian Foundation has established 40 scholarships, mostly for graduate work, worth \$1,000 each, through which 20 American students are sent to Scandinavian countries and 20 Scandinavian students are received in American higher institutions. The San Francisco Chamber of Commerce has agreed to provide five scholarships for Chilean students in the United States. The Society for American Fellowships in French Universities has established 25 fellowships worth \$1,000 each, to be awarded to graduates of American colleges for advanced study and research in French universities. They are granted for one year, but may be renewed for a second year. The Committee for Relief in Belgium Educational Foundation will send 33 Belgian students to American universities on scholarships during the academic year 1920-21.

During the year 1919 the Rockefeller Foundation provided fellowships and scholarships for 85 persons, including 57 from China, 5 from Brazil, 4 from Czechoslovakia, and 1 from Salvador, at American colleges and universities for the study of medicine and public health. The foundation has not adopted an inflexible system of granting fellowships, but has been guided solely by the possibilities for noteworthy service which might be rendered by the holders of the fellowships.

Under the supervision of the International Serbian Educational Committee there are over 50 young Serbian students, divided about equally between young men and young women, studying at American colleges and universities.

## THE RHODES SCHOLARSHIPS.

On account of the suspension of elections to the Rhodes Scholarships during the war, double the usual number of scholars will be elected in September, 1920. Thereafter the regular number, 32, will be chosen annually.

A new method of selecting the holders of the scholarships has been adopted. As was the case previous to the war, each State has a committee of selection which chooses the successful candidates subject to the confirmation of the trustees of the Rhodes scholarships. The change in the method of selecting the scholars is as follows:

Candidates must in the first instance be selected by their own college or university. The method of doing this is left to each institution. Institutions with a total enrollment of less than 1,000 students may be represented in the competition for any one State by not more than two candidates; those with from 1,000 to 2,000 students by not more than three candidates; those with more than 2,000 students by not more than four candidates. In States where elections are to be made this year both for 1920 and for 1921, institutions may be represented by twice the number of candidates that would be allowed were only one appointment to be made. Institutions should select their representatives on the basis of the qualities which will be considered by the State committee in making the final selection. These are: (1) Qualities of manhood, force of character, and leadership. (2) Literary and scholastic ability and attainments. (3) Physical vigor, as shown by interest in outdoor sports or in other ways.

The qualifying examination formerly required of all candidates for the Rhodes scholarships has been abandoned. The abandonment of this examination does not grant to Rhodes scholars exemption from examinations required by Oxford University for any of its degrees. Under recent regulations, however, holders of an "approved" degree from an "approved" university, with three years' residence at the university in question, can obtain "senior standing" and exemption from all examinations (including any examination in Greek) prior to the final honor schools. No list of approved universities is published. Applicants are required to submit their records with a view to the determination of their standing.

Before the war the annual stipend of £300 was ordinarily sufficient to pay all the expenses of the Rhodes scholars. The depreciation in the purchasing power of money, however, has made it necessary for the recipients of these scholarships to be able to supplement the stipend to the extent of £50 per annum. It is hoped that this change in the financial value of the scholarships will not discourage enterprising and capable young men from offering themselves as candidates. The resumption of the practice of awarding the scholarships in this country will no doubt continue to be an important factor in fostering the spirit of international friendship between the United States and Great Britain. This spirit so ardently desired by the founder of the scholarships was manifested in a later life, even after the Great War.

### INTERNATIONAL EDUCATIONAL CONFERENCES.

One of the direct results of this international interest in higher education was the conference of American and British professors of English held early in July, 1920, in London. At this conference 17 delegates from the leading American universities joined with nearly a hundred representatives from British universities in a very profitable discussion of their mutual problems.

Another important conference was that of the International Federation of University Women, also held in July in London. This federation was founded for the purpose of promoting close contact among college women of various countries by establishing traveling fellowships; by making provisions for the exchange of professors, lecturers, and students; and by establishing clubhouses and other centers of international hospitality.

At the London conference representatives were present from a large number of countries, including the United States, Great Britain, Spain, Italy, Holland, the Scandinavian countries, France, Belgium, and Czechoslovakia. Considerable attention was devoted to the educational opportunities open to women in the several countries. A constitution was adopted and plans made for establishing a central office in London to act as a coordinating agency for the committees on international relations located in each of the countries which are members of the federation. It is planned to hold the next international conference in the summer of 1922.

### THE INTERNATIONAL UNION OF ACADEMIES AND THE AMERICAN COUNCIL OF LEARNED SOCIETIES.

In March, 1919, the French Academy of Inscriptions and Belles Lettres, taking into account the movement in the field of pure and applied science, which ultimately resulted in the International Research Council, invited the leading academies and learned societies of the allied nations to send representatives to an international conference to be held at Paris during the following May. The object of the conference was:

- (1) To establish, maintain, and strengthen among the scholars of the allied and associated states corporate and individual relations which shall be sustained, cordial, and efficacious, and which shall, by means of regular correspondence and exchange of communications and by the periodical holding of scientific congresses, make for the advancement of knowledge in the various fields of learning.

- (2) To inaugurate, encourage, or direct those works of research and publication which shall be deemed most useful to the advancement of science and most to require and deserve collective effort.



Delegates from several countries, including the United States, attended the conference. A plan for the establishment of an International Union of Academies was drawn up and later adopted at a second conference, at which there were representatives from 11 countries. The new organization is called Union Académique Internationale, and it proposes to bring about "cooperation in the advancement of studies by means of collective researches and publications in the fields of the philological, archaeological, historical, moral, political, and social sciences."

The governing body of the Union Académique Internationale is the "Committee of the Union," which is composed of two delegates from each of the participating countries. The headquarters of the union are located at Brussels, where occur the meetings of the delegates which are held at least once a year. At a meeting in May, 1920, officers were elected. At that time the following countries had been admitted to membership: Belgium, Denmark, France, Great Britain, Greece, Italy, Japan, The Netherlands, Norway, Portugal, Rumania, Russia, Serbia, Spain, and the United States.

The organization of the International Union of Academies immediately raised the question as to how American scholarship was to be represented in the new body. In the United States there is no academy similar to the British Academy and others maintained in European countries. Obviously it did not appear possible or perhaps desirable to undertake at once the creation of such an academy. Instead it was decided at a meeting of representatives from 10 of the learned societies, held in Boston, September, 1919, to recommend the creation of the "American Council of Learned Societies." The representatives thereupon drew up a constitution, which has subsequently been ratified. The constitution provides that the council shall be composed of two delegates from each of "the national learned societies of the United States which are devoted by scientific methods to the advancement of the humanistic studies." Eleven such learned societies have so far accepted membership in the council.

The Council on Learned Societies will name and instruct the delegates to the meetings of the International Union of Academies. It will also, if its resources permit, undertake the compilation and publication of exhaustive collections and studies in the field of the humanities.

#### THE AMERICAN UNIVERSITY UNION IN EUROPE.

On June 18, 1917, alumni from 10 of the principal American higher institutions met in Paris and formed the American University Alumni Association of France. The objects of this association were

"to cooperate in all proper ways with university authorities in the United States for the general well-being of American university and college men who come to France." A short time before this meeting the Yale Bureau in Paris was authorized, its object being "to supply a headquarters in France for Yale graduates, students and prospective students, and their friends."

These two movements were typical of a widespread feeling among college men that more suitable accommodations should be made for them while they were abroad in military or other service. Many conferences were held in the United States with officials of war service organizations, and finally in 1917, at a meeting of representatives from 15 leading universities at the University Club in New York City, plans for the organization of the American University Union in Europe were adopted. Five men composing a small executive committee went to Europe for the purpose of establishing branches of the union at several prominent European centers. The efforts of the American University Alumni Association in France and of the several individual college bureaus were immediately merged with those of the union. The representatives of the individual bureaus used the headquarters of the union and contributed powerfully to its success.

The union undoubtedly performed a great service for American college men in Europe during the period of the war. In his report for the year ending July 1, 1919, George Henry Nettleton, the director of the union, sums up the war work of the union as follows:

Organized primarily to meet the needs of American college men and their friends in service in the cause of the allies, the union through its various offices enrolled up to July 1, 1919, about 35,000 American college men, representing over 530 American institutions of learning. During the course of the war over 80 men and women shared in the regular work of its various staffs and bureaus. Many of them were American college professors given special leave for this overseas service. About 30 different American institutions were represented on the various staffs, advisory councils, and committees of the union in Paris, London, and Rome. The union was thus, both in the personnel of its overseas organization and in the constituency which it served, broadly representative of American colleges.

The service of the Union was essentially democratic. Its doors were open at all times to all American college men and their friends. It recognized no distinctions of rank, offering to officers and men alike the same general advantages, the same personal service, and giving to both opportunities, almost unique during the war, of meeting on common ground. The union in Paris developed special war facilities, such as those of purchasing, canteen, and banking departments, for the common benefit. Its rooms and restaurant, its entertainments, and its annual holiday dinners at Thanksgiving, Christmas, and New Year's were open equally to men of all colleges and of all ranks. At the offices and social headquarters of the union in London and Rome the same spirit prevailed.

The officers of the union also assisted quite materially, after the signing of the armistice, in locating the 2,000 American army students who were given leaves of absence to study at British schools and universities.

While the American University Union was in its beginning largely a war service organization it was recognized at the outset that it could perform an important peace-time service for the hundreds of American students and professors who study from time to time in European centers. Accordingly the board of trustees of the union re-defined the object of the organization as follows:

The general object of the union shall be to serve as a bond between the universities of the United States and those of European nations, especially by encouraging the attendance and advancing the welfare of American students (including both men and women) at the universities of France, Great Britain, and Italy, in such ways as the trustees may see fit.

The early plan of financial support also necessarily came in for considerable change. During the war the union had been maintained about equally by dues received from 130 colleges and universities and by voluntary subscriptions from interested persons or organizations. The amount collected in these two ways for the year ending August 31, 1919, was \$41,588.

Under the new plan of organization the trustees of the union will be appointed by the large higher institutions, by certain higher education associations, and by the trustees themselves. The directors of the American Council on Education and of the Institute of International Education, with whom the union works in close cooperation, are ex officio trustees. Dues from subscribing colleges and universities, ranging in amount from \$100 to \$500 per year according to the number of their graduates, continue to be one of the chief sources of support. However, the union is also endeavoring to raise an additional fund of \$300,000 for current expenses, permanent endowment, and the erection and endowment of a *Maison des Etudiants* in Paris.

The plan for building a *Maison des Etudiants* in Paris is the direct result of a very generous and valuable gift of land in the center of Paris made to the union by the municipal council of Paris. The site for the proposed building is located in the very center of the city and in easy walking distance of the important higher institutions. Until the "Maison" is erected the officials of the Paris branch of the union will continue to occupy temporary quarters in which they will serve American college men and women.

In May, 1919, the offices of the union in Rome were discontinued and the interests of the union turned over to the director of the American Academy in Rome. For the present, at least, it is planned

to maintain only the Continental division in Paris and the British division in London.

In London officers of the union have been particularly fortunate in obtaining quarters in the same building with the Universities Bureau of the British Empire, where also may be found the Office National des Universités et Écoles Françaises. Besides affording facilities for easy cooperation with these organizations the location of the union enables students to have easy access to the British Museum and other centers of educational interest in London.



DEPARTMENT OF THE INTERIOR  
BUREAU OF EDUCATION

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STATE LAWS  
AND REGULATIONS GOVERNING  
TEACHERS' CERTIFICATES

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# STATE LAWS AND REGULATIONS GOVERNING TEACHERS' CERTIFICATES.

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## INTRODUCTORY STATEMENT.

It is the purpose of this study to present information as complete as possible concerning the laws and regulations which govern the issue of teachers' certificates in the United States in so far as they are regulated by State legislation or State administrative departments. Licenses to teach issued by city boards in accordance with regulations prescribed by them are not included in this study; all other licenses to teach in the public schools of the United States are. Diplomas or certified statements of educational institutions which have the force of licenses to teach and such city certificates as are issued according to regulations set forth in the acts of State legislatures concerning other certificates or in rules of State boards of education are included. It is not considered within the scope of this study to analyze the laws relating to city certificates or to set forth the regulations prescribed by city boards of education. Nor is it possible to analyze the regulations governing courses leading to preparation for teaching given by the various institutions or approved by certificating boards or the methods pursued in examining teachers for certification in the different States. The former are given when prescribed by hours and subjects in the law itself or in regulations of the State boards as prepared for distribution. In other cases they are merely referred to as institutions or courses approved by the State department. Examinations are described by subjects and grades usually, or so as to conform with the methods used in the laws or regulations.

The method used to present principal regulations and summary tables follows, in part, that used by the Bureau of Education in previous studies, the last one made in Bulletin No. 18, 1911. This course is followed in order to facilitate comparison by persons interested in the evolution of legal certification in the United States as well as to present the present status of certification. The fundamental purposes of the study are:

- (1) To furnish information concerning legal provisions governing the issuance of certificates to teach in all the States.
- (2) To furnish data for comparison among States and facilitate recognition of certificates in cases in which similar or equivalent qualifications are demanded.

(3) To point out the trend in progressive legislation concerning teachers' certificates and promote standardization for the United States.

(4) To facilitate study and comparison of the standards set up by the several States.

The most important facts relating to teachers' certificates are contained in statements given on pages 39 et seq. These have been examined and corrected by the State departments in all cases. They are corrected to include changes in regulations or legislation up to December 1, 1919, but not later. The terms used are those given in the law or in the regulations of the State board. Licenses, diplomas, permits, and certificates are used in different States. When general reference is made, all are usually referred to as "certificates."

To avoid repetition, the following facts are assumed as universally accepted. Every teacher must be of good moral character. Experience, when required, is assumed to be successful experience. The nature and effects of alcoholic stimulants and narcotics are included in the study of physiology and hygiene. A standard high school is one requiring four years of work beyond the elementary school. A standard normal school requires high-school graduation for entrance and gives two years of work of college grade. A standard college is one which maintains a four-year course and requires the completion of four years of high school for entrance. Approved schools are those which meet requirements of State boards or State departments of education. The terms used in the law are repeated in the outlines as far as possible. In most cases the certificates are arranged according to duration, though there are sometimes exceptions to this. State certificates precede county certificates, which precede local certificates. Supervisory and administration certificates precede high-school certificates, and high-school certificates precede those for elementary schools and kindergartens. Special and temporary certificates usually follow all others.

#### HISTORICAL SKETCH.

*Certifying authority.*—The power of certifying teachers was vested in local authorities first in practically all the States. This was indeed a matter of necessity and convenience and followed precedent set by the earliest settlers of New England and New Amsterdam. The early State and county authorities had neither a sufficient number of assistants to carry out such authority if granted, nor traveling allowance and other requisites for effective enforcement of regulations over any extended amount of territory.

New York was among the earliest States to establish State certification, but it did not always exercise the legal authority granted. The authority to issue certificates was given the State superintendent

in 1843. After 1847, when the office of county superintendent was abolished, it was exercised by State and town superintendents. In 1856 certificates were issued by both local school commissioners and the State superintendent, but the latter was empowered to prescribe the regulations under which they were issued. It appears therefore that the power to control certificates was centralized, but the authority was not exercised, extensively at least, until 1888.

Centralization of certification in New York developed about as follows: From 1795 to 1812, qualifications were determined by the town commissioners; 1812 to 1841, the town commissioners and three inspectors examined and licensed teachers; 1841 to 1843, town commissioners and two inspectors performed these duties. From 1843 to 1847, the town superintendent, county superintendent, and State superintendent all were authorized to examine teachers, while from 1847 to 1856, State and town superintendents only controlled certification. From 1856 to 1888, county school commissioners had authority to examine teachers and issue certificates for their districts, while the State superintendent prescribed rules under which they were granted, and issued certificates valid throughout the State. In 1888 the certifying authority was centralized by the State superintendent and the county commissioners, who voluntarily used questions and followed rules prescribed by the State superintendent. In 1894 a law was passed which removed all doubt concerning the authority of the State superintendent in this respect by prescribing that commissioners examine teachers only under rules prescribed by the State superintendent and with the use of questions furnished by the State department and examined by a board of examiners in the State department. Thus uniformity and centralization were complete. In 1899 the supervision of teachers' classes passed to the State department, thereby centralizing and coordinating all agencies concerned with the preparation and licensing of teachers. Virginia, Montana, and Idaho are other States with similar systems. Some other States, however, accomplish similar results by requiring applicants for certificates to complete "approved" courses in teacher-training institutions, or through representation of the State superintendent on the governing boards of teacher-preparing institutions.

Missouri and Indiana in 1824 legalized the examination of teachers by district visitors and township trustees, respectively. Later, in 1837, Indiana provided by law for "a selective estimate and ranking of teachers of the county by three examiners in each county appointed by the circuit court." In 1847 the State common-school convention "demanded some standard of qualifications and corresponding compensation for teachers of the State." Five years later, under provisions of the law of 1852, the certification of teachers was made one of the duties of the State superintendent of public instruction, to

be performed by himself or deputy. Few deputies were appointed immediately. The law of 1861 modified that of 1852 in such a manner that one examiner was appointed in each county by the board of county commissioners for a term of three years. These officers also granted licenses on public examination, exacting therefor a fee of \$1. In 1873 the county commissioners became—by name and duties prescribed—county superintendents and assumed the responsibility of examining teachers. In Indiana thenceforth the two systems of examination, county and State, developed together; the county superintendent issued certificates of county-wide validity and the State superintendent those which were State-wide.

In Michigan the first law provided that teachers should be examined and certificates given by township boards of school inspectors. These boards were replaced in 1867 by county superintendents. The same law (of 1867) granted authority also to the State superintendent of public instruction to issue certificates good in the State. It was repealed temporarily, but was reestablished in 1897 and still is in operation.

In Pennsylvania the authority to grant certificates was given first to town committees elected by the people in much the same way as and with duties and powers similar to those in New England. This authority was transferred to county and State superintendents in 1854, where it has since remained. These three States, Indiana, Michigan, and Pennsylvania, retain the State and county systems at the present time, though in Indiana the State controls and in Michigan it exercises partial control over the issue of certificates.

Many of the States, particularly the older ones, had a development similar to those given. A few, like Arizona, established State centralization of the certificating powers with Territorial organization. Others are just reaching this period of development after unsatisfactory experience with more localized and less efficient systems. A few States continue the State-county system, and two still give local authorities full power to pass on the qualifications of teachers. In general, the development is about as follows: Beginning with local district or township inspectors or examiners, the certificating power passed into the hands of county superintendents. As State departments of education were definitely established and assumed importance and prestige, more and more educational power was granted them. Higher efficiency and more unified requirements were secured under these new conditions by including among the legal duties of the State department that of granting certificates of State-wide validity, and that of influencing or controlling the whole matter of certificating teachers. The continuous tendency toward centralizing the certificating power from 1898 to 1919 is shown in Table 1, which summarizes information on this subject in this and previous studies made in the Bureau of Education.

TABLE 1.—*Showing tendency toward centralization of certificating authority in State departments of education.*

Kind of system.	Number of States. <sup>1</sup>			
	1898	1903	1911	1919
State systems (State issues all certificates).....	3	5	15	26
State-controlled systems (State prescribes rules, gives questions, and examines papers; county authorities issue some certificates).	1	(?)	2	7
Semi-State systems (State makes regulations and gives questions; county authorities issue certificates and correct papers).	17	(?)	18	10
State-county systems (both issue certificates; county retains full control over examination for one or more certificates).....	18	(?)	7	3
County system (county issues all certificates).....	4	4	1	0

<sup>1</sup> Temporary and emergency certificates and permits not included.

° No data.

*Qualifications required for certificates.*—During the colonial period the requirements for teachers' certificates were very meager and indefinite, though some were always exacted. In New York, during the period of Dutch colonization, teachers were licensed by civil and ecclesiastic authorities. No one was allowed to teach without a license so obtained. During the English control, 1683 to 1689, it was decreed that "no schoolmaster should teach without a license from the Archbishop of Canterbury or from the Bishop of London." That requirements under either régime were not rigid is illustrated by the case of Johannes von Gilder, who was tolerably "well acquainted with reading and writing; so it happened that several of the principal inhabitants advised and encouraged him to open a public school." He then petitioned and was granted the privilege of "keeping school."

In New England, as in New York, the character of the requirements was in some cases purely religious, some special form of religion being a prerequisite. In others, nationality was the determining factor, and in others academic proficiency was the desideratum. In Connecticut and New Jersey it was decreed at least as early as 1714 that selectmen should examine teachers as to their qualifications. Little is said as to the nature of these. The New Hampshire schoolmaster, like that of Massachusetts, must be "discreet of conversation and well versed in tongues." This regulation was in force in 1647.

The Massachusetts law of 1701 required every grammar schoolmaster to be approved by the minister of the town and the ministers of two adjacent towns. According to the law of 1712, schoolmasters must secure the approbation of the selectmen of the town. Later, in 1789, it was required that masters of schools must be graduates of a college or university, though a certificate of proficiency from some learned minister might be taken in lieu of this. Still later, in 1827, a certificate of qualification from the town school committee was necessary before any teacher could be employed. The system of town certification of teachers still prevails in Massachusetts.

When States and Territories were organized, the laws prescribed qualifications more definitely. In New York, from the beginning of its organization as a State, qualifications of some sort were exacted. By the act of 1795 the town commissioners were required to determine qualifications, though these are not specified and were probably left to their own judgment. In 1812 we find that a commission appointed by the governor to report on a system for reorganizing the common schools recommended that, "as an impediment to bad men getting into the schools, it is made the duty of two town inspectors to inquire into the moral and literary qualifications of the candidates for the place of teacher." The legislature in the same year passed a law in accordance with the recommendations which "established the principle that all teachers should possess moral character and certain scholastic qualifications." In 1841, when the county superintendency was established, the county superintendents were required to examine candidates and issue certificates of qualification. Testimonials of moral character and examinations testing ability to teach and "learning" were required. The latter included spelling, arithmetic, geography, history, and English grammar. In 1843 the State superintendent was authorized to issue certificates on "such evidence as may be satisfactory to him." Later it became lawful and customary to issue certificates upon the recommendation of local superintendents and school commissioners. Though the law of 1856 empowered the State superintendent to prescribe rules under which certificates might be issued, the power was not exercised. In 1888 a demand for a change in the existing methods of certifying teachers was caused by the fact that political pressure was being used to secure certificates. It was believed that instituting a definite, uniform method of examination under control of the State department would prove an effectual way of securing higher standards. The use of uniform questions, at first voluntary, was later made obligatory; and subjects, questions, and grades for examination were prescribed by the State superintendent. It is interesting to note that, in the first uniform examination in 1887, not alone questions but answers were furnished, and a circular sent showing the amount of credit to be given for each question. The subjects given were arithmetic, geography, grammar, physiology, general questions, American history, civil government, methods, school law, and algebra. Three grades of certificates were given. The law of 1887 provided for granting certificates to college graduates with experience. The normal diploma had been recognized as a State certificate since 1849, but did not secure exemption from local examinations in all cases.

In Michigan township inspectors licensed teachers until the county superintendency was established in 1867. The law provided that candidates for teachers' certificates should be examined in the

"several branches as usually taught in the primary grades, their moral character and their ability to teach and govern school." No branches or grades of certificates were named, and the opinion of the inspectors was sufficient. In 1867, under the provisions of the county superintendent's law, applicants were required to be examined in orthography, reading, writing, grammar, geography, and arithmetic. Three grades of certificates were granted, good for from six months to one year in the county.

In colonial Pennsylvania, though the custom of employing preachers as teachers and assuming their ability, was quite general, there is one early instance of a license requirement. Thomas Macon in 1693 was "told that he could not keep school without a license and was ordered to procure a certificate of ability, learning, and diligence." The first instance of stipulating subjects for examinations is found in the State law of 1834, according to which no certificate of qualification should be given by the inspectors to any person unless he was found qualified to teach reading, writing, and arithmetic. The Pennsylvania law of 1849 required teachers to hold a certificate enumerating the branches that they were capable of teaching, signed by a majority of the board of directors. These certificates were good for one year and renewable annually. The policy of issuing different grades of certificates of different duration was adopted in 1854 by a committee of county superintendents. The law of 1867 provided that no teacher should receive a certificate who did not possess a fair knowledge of orthography, reading, writing, geography, English grammar, arithmetic, history of United States, and theory and practice of teaching. Wickersham says of this law:

It was not expected that many teachers could pass an examination in the theory of teaching or even that many superintendents should be able to conduct such an examination, but it was thought that the time had come when all concerned in the work of education should begin to study the principles of their profession.

In Indiana the examination given by township trustees covered the subjects of reading, writing, and arithmetic, with an occasional branch added if petitioned by patrons. The test was simple and certificates often might be had for the asking. In theory, the qualification of teachers was recognized. In practice, little discrimination was made. Teachers having been examined "touching their qualifications and particularly as respects their knowledge of the English language, writing and arithmetic," were employed and entered into "articles of agreement." Not until 1865 can it be said that the examining and licensing of teachers received systematic and dignified consideration. In that year the branches in which examinations were required were first specified and the duration of licenses fixed. These were of four grades, good for 6, 12, 18, and 24 months. The six common branches were required by this law: Physiology, history

of the United States; elementary algebra; physical geography and elementary botany; elements of rhetoric and mental and moral science; Constitution of the United States; and the State school law. In 1871 in Indiana the State board of education began the monthly preparation of questions upon the six legal branches and sent copies to the examiners of the several counties for use in the examination of teachers. This practice, while not obligatory, was almost universal. Two grades of State certificates were provided for the first grade, requiring history and zoology, in addition to the requirements for the second grade. In 1883 Indiana provided for a "professional" license, granted upon examination prescribed by the State board. Papers were graded and licenses issued by the State board of education.

These instances are reasonably typical of the development of scholarship requirements for certification in other States. From exceedingly indefinite requirements each State passed first to the stage in which language, writing, and arithmetic were required. Grammar, geography, physiology, United States history, and finally theory and practice of teaching were added as time passed. From the establishment of the first normal school in 1839, professional preparation for teaching became more and more common. Demands were increasing that certificates without examination be given to graduates of professional schools. In some States, Pennsylvania, for example, certificates were granted to normal graduates even before the power of certification was given to the State board or the State superintendent. By 1873 the discussion of such a certificate thought of as a "professional license" had become quite general, and a number of States recognized the demand in certification laws or in practice. The inclusion of the theory and practice of teaching as one of the subjects for examination by Pennsylvania, referred to above, became a custom among many States, and gradually other professional studies were added. The rapid growth of the recognition of professional and academic study as preparation for teaching is shown by the fact that, by 1897, 28 States recognized graduation from normal schools and universities as evidence of qualification for certification without examination. Data are given in Table 2 showing requirements of this nature prescribed by the different States at the time each of four investigations was made by the Bureau of Education.



**TABLE 2.**—*Growth of recognition of academic and professional attainments in legal requirements for certificating teachers.*<sup>1</sup>

States in which—	1908	1909	1911	1919
Professional training is recognized as basis for granting one or more certificates.....	29	33	42	47
Professional subjects are included in examination for certificates (all grades or lowest grade).....	17	40	42	46
Professional training is prerequisite for certificates of the lowest grade.....	0	0	2	17
Graduation from standard high school <sup>2</sup> is prerequisite for certificate of lowest grade.....			1	11
Graduation from high school and some additional professional training is prerequisite for lowest grade certificate.....			1	4

<sup>1</sup> Emergency or temporary certificates are not considered in this table. Certificates deemed of this nature include a "third grade special" certificate in Wisconsin, where the regular third grade certificate requires 6 weeks of professional training; also a third grade "special" certificate issued in Idaho.

<sup>2</sup> Missouri and Kansas require high-school graduation for some but not the lowest county certificates. The New Jersey law requiring high-school graduation (4 years) did not become effective till 1914, though passed in 1911.

### AGENCIES WHICH ISSUE CERTIFICATES.

Teaching certificates are issued by State, county, and local (town, district, or city) authorities. In this study city certificates are not included except when there are direct provisions in the State law or State regulations which govern their issue, and their consideration is not easily separated from that of certificates outside of cities. Regulations governing city certificates are in most cases made by the local boards, and since all can not be included, all are omitted. Temporary and emergency certificates and permits are also omitted from the summaries given below. Considering then the State, county, and township or district certificates (outside of cities), there are the following systems of administrative organization:

1. *State systems*, in which all certificates are issued by State authorities and the State retains control over the whole matter of teacher certification.

2. *State controlled systems*, in which State, county, and district<sup>1</sup> authorities may issue certificates, but the authority governing the issue (including giving questions and examining papers) is retained by the State officials. Local authorities merely issue certificates.

3. *Semi-State systems*, in which States exercise some but not complete control. The State department makes the regulations and gives the questions for examination, but local authorities examine the papers and issue certificates.

4. *State-county systems*, in which the State, county, township, city, and certain district authorities all issue some certificates and govern all or important regulations formulating questions, for example, under which they are granted.

5. *State-local systems*, as in some of the New England States, in which complete power of certification is given to the township school committees as well as to the State department.

<sup>1</sup> New York.

This classification is made with the idea of showing prevalent tendencies toward centralization of certificating powers. In 33 States practically the entire control is with State authorities. In 10 additional States the power to give questions and make regulations is retained by State authorities, but county authorities issue certificates and correct the papers. This arrangement does not result in a uniform State system, since counties may have different standards for grading papers. Uniformity is obtained only when State authorities examine papers as well as give questions and make regulations under which examinations are held and certificates issued. This is illustrated by an experiment made by the Bureau of Education in a State in which the semi-State control system obtains. Several copies of the same reply papers were sent to a number of county superintendents to whom the matter was explained and who were asked to grade the papers as examination papers ordinarily are graded by them. The results of this experiment are shown below.

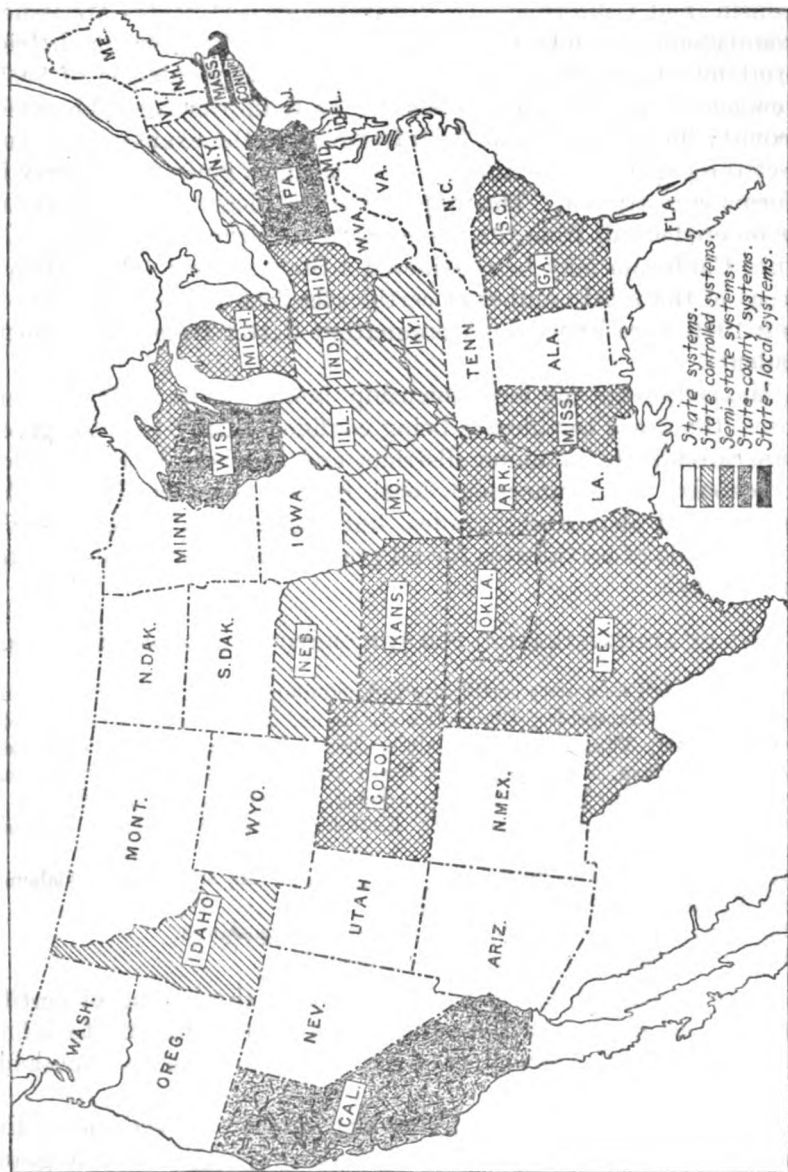
TABLE 3.—Grades given by seven county superintendents to four examination papers written by one candidate for a first-grade teaching certificate.

	United States history.	Geography.	Reading.	Arithmetic.
	Per cent.	Per cent.	Per cent.	Per cent.
Superintendent A.....	68	77	59	70
B.....	50	57	57	60
C.....	81	83	65	88
D.....	80	60	88	66
E.....	44	63	85	66
F.....	72	78	90	65
G.....	91	84	70	73
Variation.....	44-91	57-88	57-85	65-88

Below is a table showing the seven superintendents arranged under each of the four headings in the order of their ratings from lowest to highest. For instance, Supt. E gave the lowest rating in United States history; Supt. G gave the highest rating in the same subject. It will be noted that no superintendent gave uniformly high, low, or medium ratings. This becomes particularly evident if lines be drawn connecting the four A's, the four D's, and the four G's.

*Superintendents arranged from lowest to highest according to ratings given examination.*

	United States history.	Geography.	Reading.	Arithmetic.
Lowest.....	E	B	B	F
Second.....	B	E	E	D
Third.....	A	D	A	E
Fourth.....	F	A	O	B
Fifth.....	C	F	F	A
Sixth.....	D	G	D	C
Highest.....	G	C	E	C



Administrative systems which issue teachers' certificates.

There are three States in which the county authorities are given the power to grant certificates practically on their own initiative and unhampered by State regulations. These are Pennsylvania, Wisconsin, and California. In Pennsylvania certificates are issued by county superintendents and may be issued by town or district superintendents whenever the district reach a population of 5,000 and employ a special superintendent. In California and Wisconsin the county boards may issue certificates, give the examination, and correct the papers. The number of certificates given in this way in California is restricted. The majority of certificates in the State are given on applications from the State board and from institutions. In practice California may be considered a State system. Less than 2 per cent of the total number of certificates issued by county boards during 1911 were issued on examination letter from State superintendent.

In Massachusetts the local township boards issue nearly all certificates, the State certificates being confined chiefly to those given to superintendents in union districts and teachers in State-aided high schools. In Connecticut local boards issue certificates for standard and elementary grades, but the State also issues eight different kinds of certificates for all grades and all schools of State-wide character.

#### SYSTEMS OF ADMINISTRATION FOR THE CERTIFICATION OF TEACHERS.

1. State system. All certificates are issued by the State superintendent. New Hampshire, Rhode Island, Maine, New Jersey, Vermont, Delaware, Arizona, Illinois, New Mexico, New York, Indiana, Florida, Tennessee, Kansas, Missouri, Minnesota, Iowa, North Dakota, South Dakota, Montana, Wyoming, Utah, New Mexico, Nevada, Idaho, Oregon, Washington, D. C.

2. State county system. The State superintendent issues certificates. Illinois, Ohio, Michigan, Indiana, Kentucky, Missouri, Nebraska, Indiana, Illinois, Ohio.

3. Semi-county system. Some of the counties issue certificates. Michigan, Indiana, Ohio, Kansas, and Florida.

4. Semi-county system. Pennsylvania. Local boards issue certificates.

5. Semi-county system. Local boards issue certificates.

As the importance of education regarding the issuing of certificates is the responsibility of the State to grant them and to define the conditions under which they are granted. The two methods are:

1. State system. Regarding the number of certificates the number is demanded for each, the authority empowered to grant them, their content, etc.

2. Management by statute of authority to determine rules and regulations for certification. State officers without making specific provision for details in the law itself. Generally the authority to do this is given to the State board of education or the State department.

City boards are granted this liberty in nearly all States either directly or indirectly.

✓ **NUMBER AND NAME OF CERTIFICATES.**

Tables 4, 5, 6, and 8 give data concerning the number, duration, validity, and distribution among classes of schools of certificates issued by State, county, and local agencies. A comparison with similar data collected in 1911 shows that there were about the same number of certificates granted in 1919 as in 1911. Some States have discontinued one or more of the lower grade certificates; several have simplified their systems and decreased the number in this way. Vermont, for example, in 1911 issued 11 different kinds of certificates, and in 1919 only 3, both exclusive of permits. On the other hand, the practice of differentiating certificates as among teachers, principals, superintendents, and instructors or supervisors of special subjects has increased, and the number of certificates of this nature is correspondingly larger. If all special certificates were enumerated here as separate certificates, namely, one for music, another for art, another for physical training, and the like, the number would be increased. Since these are usually classified under one head as "special certificates" in the laws or regulations, the same form is followed here. The case of city certificates when given here is similar. The law usually permits the city boards to issue several grades of the certificate named under each head.

Each State has elected the terms by which to designate the certificates issued. There is no homogeneity among the States, either in the names used or in their significance; nor are any principles followed which control the naming of certificates. Acquaintance with the names and provisions of certificates in one State is of little assistance in interpreting those of other States. A first-grade certificate in one State may be the equivalent of a college diploma or life license in another so far as qualifications demanded for or validity of the certificate granted is concerned. This lack of uniform nomenclature for all States or the adoption of governing principles controlling the naming of certificates possibly accounts for the difficulty in securing a more general and a fairer system of exchange or recognition of certificates among States.

✓ Designations of certificates are influenced by or dependent upon:

1. Extent of territory covered; as State certificate, county certificate, local certificate.
2. The kind of school in which certificate is valid; as elementary, high-school, kindergarten, primary.
3. Subjects for which issued; as special certificate in home economics, in music, etc.

4. Time for which valid; as life, 36 months, permanent, provisional.
5. A combination of two or more of these.

There are a variety of terms used throughout the country. "Certificate" is the most common; "license," "diploma," and "permit" are others, the latter being used in the same sense as temporary or emergency certificate or license. Some States use both certificate and license, referring by these terms to a different type of certificate, Wisconsin for example. Connecticut gives "honor" and "statutory" certificates and New Hampshire "service" certificates. "Permanent" and "provisional" or "probationary" often refer to certificates which are alike in the qualifications exacted and the kind of school and territory in which valid, but different in duration. First, second, and third grade certificates usually represent varying grades of qualifications and experience exacted, but belong to the same class as to kind of schools and territory in which they are valid.

### ✓ CLASSIFICATION OF CERTIFICATES.

Certificates are classified in various ways in the different States. The most common forms of classification are as follows: (1) According to the class of schools or grade of work for which they are issued and in which they are valid. (2) According to the degree of scholarship which they express, as determined by grades made and number of subjects included in an examination; or by the number of years' credits, or hours of academic or professional training indicated on the credentials presented. These are valid in all schools. (3) Combination of scholarship and class of schools or work; such as temporary and permanent certificates for high, elementary, and primary schools, for special subjects and for supervision, or first and second grade certificate for each. Successful experience is an important factor in the requirements for the higher grades of certificates in most States.

The most common classification according to kind of schools is that of elementary and high-school certificates, often two or more grades of each. Usually additional training or examination in additional subjects is exacted for secondary or high-school certificates. Special certificates for teachers of kindergarten and primary grades are issued in many of the States, and special supervisors' and principals' certificates are becoming more and more common. Some States make special requirements for and give special designations to these; others require higher grade certificates, but of the regulation kind. Rhode Island does not specify a certificate for high schools, but the first grade is the one exacted from high-school teachers. Practically all States issue special licenses for teachers of music, drawing, home economics, manual training, physical education, and other specialized subjects. These may be issued on an independent

basis for training or examination in the special subject; or a regulation certificate with evidence of additional qualifications may be exacted. The number of States making this form of differentiation in certificates granted—that is, having special certificates for primary, elementary, high-school, and special-subject teachers—is increasing.

Certificates issued according to amount of scholarship, measured by examination or education are most commonly of the first, second, and third grade. They are issued by county more often than by State authorities and are usually valid in all of the schools under the jurisdiction of the authority which issues them. The period of time for which they are valid is dependent upon years of experience, the grades made in the examination, or the amount of education and training shown by credentials. They are also, but less commonly, designated as provisional and permanent. Professional, State, professional normal, college diploma, and other designations are used for certificates representing varying degrees of scholarship peculiar to the State in which they are issued but representing no widespread uniformity of practice.

#### METHODS OF SECURING CERTIFICATES.

In the majority of States there are two routes to certification—one by examination and one on the basis of credentials showing academic and professional training. The examination method is still the most common, but is gradually being replaced by that of professional preparation. Vermont is the only State in which certificates are issued on the basis of academic and professional training only, and the examination method is entirely abandoned. Connecticut is the only State in which certificates are issued on examination only.

Certificates issued on the basis of education and training are usually given for graduation from high-school training classes, normal schools, or colleges maintaining "approved" courses in education. In some States full graduation is not necessary in order to receive credit toward certification. A prescribed number of "courses" or "credits" or "semester hours" receive recognition. Full information concerning certificates granted for graduation or credits from standard institutions is given in Tables 10, 11, and 12.

Some States in which certificates are issued by the examination route chiefly are requiring a minimum amount of academic or professional training or both as a prerequisite to certification either of some or all (including the lowest) grades of certificates. Some States require in addition to graduation from accredited institutions an examination in one or more subjects. Thus we have, occasionally, a combination of the two methods. Montana and Idaho are examples of the former. Graduation from a four-year high school is becoming

rather common as a prerequisite for all or some certificates of lower grades.

In some States individual consideration is given applicants for certificates of some kinds, that is, each applicant is considered on his individual merits and not necessarily according to stated rules and regulations. Among these States are Rhode Island, Vermont, and New Hampshire. Many States keep lists of institutions approved for the purposes of certification. These are usually designated as approved or standard institutions. Among such States are California, Oregon, Montana, Maine, West Virginia, Idaho, Vermont, Michigan, and Delaware. North Carolina classifies the institutions within the State for certifying purposes. Some States use for this purpose the list of accredited institutions furnished by the Bureau of Education.

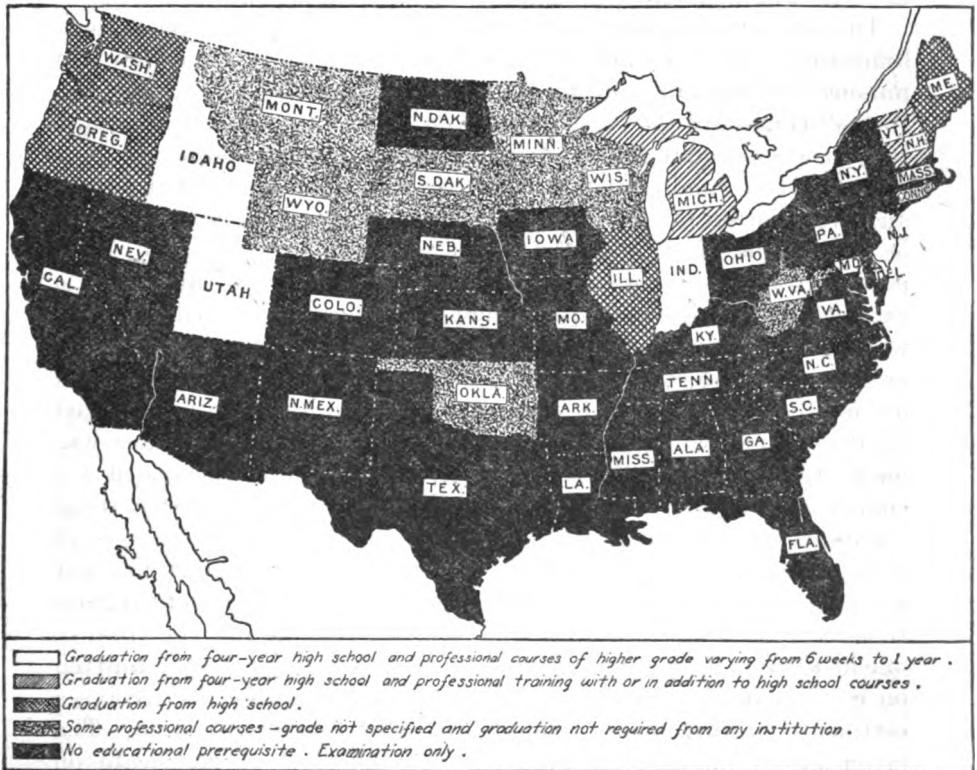
#### **SCHOLARSHIP REQUIREMENTS FOR TEACHERS' CERTIFICATES.**

The scholarship requirements set forth in the provisions under which certificates are granted are measured in terms of graduation from, or courses taken in educational institutions of secondary or higher grade, or by means of an examination in prescribed subjects. Certificates granted on such requirements may be roughly classified as follows: (1) Those based on graduation from standard college or university with or without the inclusion of professional courses. These provisions are set forth in Table 10. (2) Those based primarily on graduation from a two-year course of college grade, generally given in normal schools. These provisions are found in Table 11. (3) Those based on graduation from a four-year high school, generally including professional courses given in connection with the regular work. These provisions are given in Table 12. (4) Those based primarily on scholarship attainments shown by examination. The grades required on examination are not necessarily obtained at one time, but in some cases may be obtained in successive examinations, or the possession of a prior certificate of lower grade may be substituted for a portion of the examination. Provisions for certificates given by examination are set forth in Tables 16, 17, and 18.

The value of a certificate is measured best by the amount of scholarship and successful experience to which it testifies. The extent of its validity, its duration, and similar provisions are minor considerations, if a certificate is to be of value as an estimate of ability to teach and govern a school. There is a tendency toward higher scholarship requirements which may be observed in several ways. When a new form of certificate is established, the qualifications demanded are usually higher and more specialized than formerly (see Tables 13-15). Kindergarten, primary, and special subject cer-



tificates in most cases require high school and normal school or college graduation or the equivalent, including preparation for the special kind of work or subject for which they are issued. Certificates for administrative and supervisory positions practically all require the completion of four years of college or normal school training and in many cases an additional year of graduate work, including specialized study in administration and supervision. A study of the scholarship requirements set forth shows also the prevalence of a tendency to consider graduation from a course two years above the high school



Academic or professional prerequisites for certificates of lowest grade, excluding temporary.

as about the standard for teachers of elementary grades and completion of a four-year college course as a standard for high-school teachers. Examinations, though of course quite inadequate, tend toward showing qualifications equivalent to these. The various prerequisites for entrance to examinations are intended to insure the minimum amount of scholarship considered necessary for teachers.

In setting forth authorized requirements, as is done in this study, experience is taken at its face value, and measured only in terms of months or years of teaching service. Officials granting certificates, however, need not, and do not always, accept experience

unless some guaranty of its quality is given. In some States experience is credited toward renewal or certification only on the recommendation of the superintendent under whose direction the service was performed. The Indiana scheme for classification of teachers for salary and certificates includes a rating of the teachers' classroom efficiency made by the supervising officer. In Ohio the examination includes a practical test in teaching. The majority of States apparently assume that all experience offered as evidence of attainment in teaching ability is successful, or at least they have in their regulations no well-defined method of evaluating it.

The scholarship requirements as given in the tables have serious limitations. Courses are measured by the length of time they are pursued and examinations by the subjects given only. This assumes that all courses of the same length and all examinations in the same subject are of equal value. It is apparent that this course may not represent true conditions, but the scope of this study does not permit an investigation of the quality of the courses given in institutions or of the kind of examinations given in the different States. With normal schools and sometimes with colleges serious difficulty is encountered in differentiating among certificates granted to those who have completed the standard courses (that is, courses of higher or college grade), and those granted for courses entrants to which do not comply with the usual entrance requirements represented by the completion of a four-year high-school course. An effort was made to include in the tables concerning certificates issued for college and normal school courses (Tables 12 and 13) only those certificates based on graduation from two or four year courses of college grade. It is recognized, however, that this effort has not always been successful, and can not be so long as the present regulations in certain institutions continue. An example may be cited of one institution of the kind referred to, to which students are admitted on conclusion of elementary or high schools. The former receive a certificate or diploma on completion of a four-year course. The latter receive what is apparently the same sort of certificate on completion of a two-year course, though the difference in training represents two years of work of secondary grade. Certain other institutions which apparently require high-school graduation for entrance maintain, in addition to the regular two-year course, a three-year high school. One group of students completes a course of two years above a four-year high school, equivalent to six years above the elementary schools; the other a course of five years above the elementary grades. No discrimination is made as to the diploma or certificate issued to graduates of these courses.

Similar conditions are common among high schools giving teachers' training courses. A few require four years of high-school work and

an additional year of professional work from applicants for certificates to teach. Others issue certificates at the close of two, three, or four-year courses in which work both secondary and professional in nature is included. Standardization of courses leading to certificates given in high schools, normal schools, and colleges is badly needed in order that definite classification of certificates issued on the basis of academic and professional training may be made. Proper discrimination among courses leading to certification in the various institutions would probably lead to a wider recognition among institutions and States of certificates granted in this manner and would be for the good of the individual and the institution as well as of the service.

In Tables 9, 10, and 11 scholarship requirements measured by credits from educational institutions are given in semester hours when possible or courses or fractions of years in order to permit of their measurement and of comparison. When examinations are required, the subjects are divided as follows:

(1) Traditional elementary school subjects: Reading; writing; orthography, punctuation, orthoepy; language, composition; grammar; arithmetic, mental and written; number work; geography; United States history, elementary civics, local history; physiology, hygiene, nature and effects of alcohol, stimulants, and narcotics.

(2) Newer elementary school subjects: Drawing; music; nature study; agriculture; manual training; household arts, domestic science, etc.; physical training; current events.

(3) Higher subjects (secondary and higher schools): Rhetoric, literature, algebra, geometry, languages, history, physics, chemistry, biology, economics, and such other branches as compose the standard high school and college curricula, and also cataloging and use of school libraries.

(4) Professional subjects: Philosophy of education, history of education, psychology, school administration, theory and practice, methods, school law and State manuals, and such other professional subjects as may be named.

California has probably established better standards than any other State in the amount of academic and professional training required. Normal training equivalent to two years above a four-year high school for elementary teachers, and college graduation including one year of graduate work for high-school teachers are the California standards.<sup>2</sup> Such credentials, however, are not essential, as certificates are granted also on examination. States which require some professional training in addition to completion of a full four-year high-school course as prerequisite for any certificate are the following: Idaho, New Jersey, Indiana, and Utah. In Virginia the

<sup>2</sup> Though legal requirements are very indefinite in Massachusetts, graduation from normal school or college is the accepted standard; probably few teachers employed fall below it.

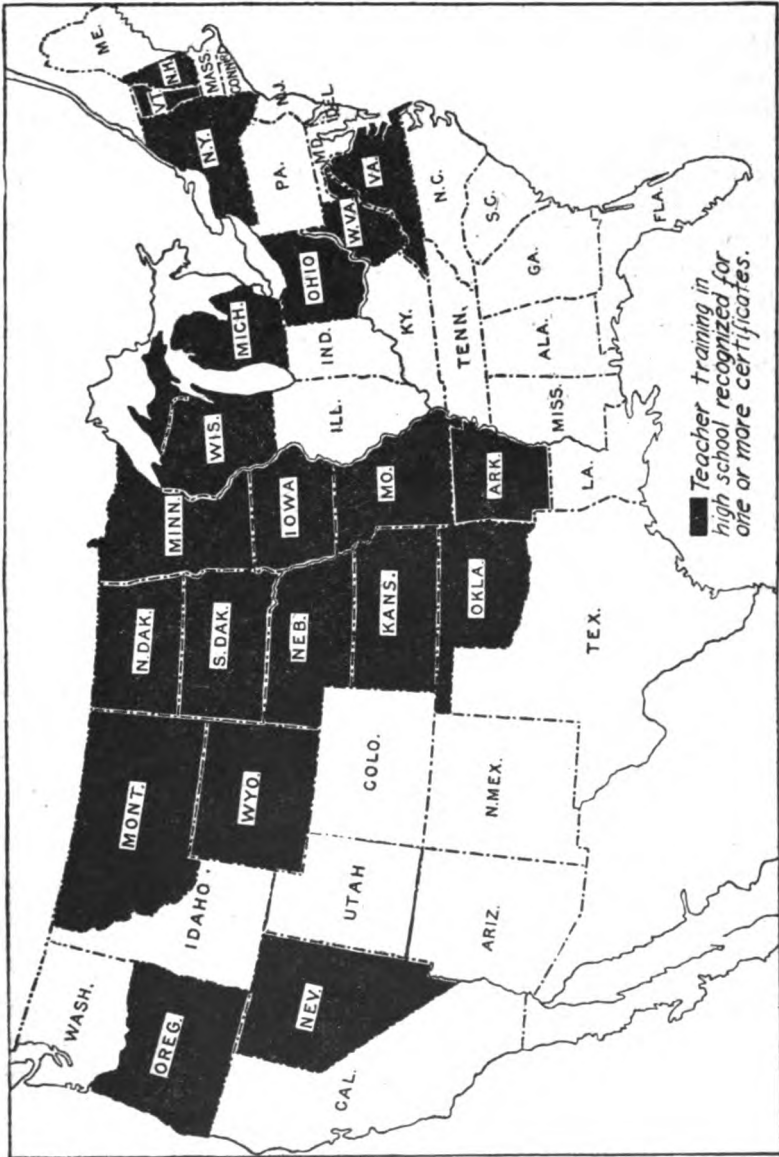
requirement for the lowest grade of certificate for elementary schools is six weeks of professional training in addition to graduation from a four-year high school, but alternative of an equivalent examination is offered. Ohio, after 1924, and Wisconsin, after 1923, will no longer grant certificates to candidates with less than four years of high-school education and additional professional training in an approved institution.

Indiana was the first State to establish by law a minimum prerequisite of graduation from a four-year high school for the lowest grade certificate to teach. At present there are 7 States, in addition to the 4 mentioned above, in which this is the minimum requirement. They are Vermont, New Hampshire, Illinois,<sup>2</sup> Michigan, Washington, Maine, and Oregon—altogether 11 States with this or a higher prerequisite for entrance to the examination for any teaching license. If we add Wisconsin and Ohio (after 1923 and 1924, respectively), California and Massachusetts (with exceptions and limitations given above), the number is increased to 15. Other States, notably Maryland, Wyoming, New York, Missouri, and Kansas, have established the high-school graduation requirement for certain certificates of lower grade but not all.

The idea of recognizing some professional training as necessary for any grade of certificate is growing in extent. The following States require some professional training in an approved school of secondary or higher grade as a prerequisite for the lowest grade certificate issued, 13 States, in addition to those mentioned before—Minnesota, Vermont, New Hampshire, Michigan, Delaware, West Virginia, Oklahoma, Oregon, Wisconsin, South Dakota (after 1920), Montana, Wyoming, and Idaho.

Twenty-one States have established teacher-training classes or normal training work in high school or in connection with high schools and recognize this training in their certification laws or regulations as fulfilling the requirements for some grade of certificate. These courses are given either as a part of the regular high-school courses, as is most common, or constitute a year's work in addition to four high-school years. In some cases the courses are under the direction of the State department and are aided by State funds. In others they are maintained by the high schools themselves independently of State aid. The following States recognize normal training in high schools as fulfilling the requirements for one or more kinds of teaching certificates: Kansas, Iowa, Missouri, Michigan, Wisconsin, Minnesota, South Dakota, Nebraska, Montana, Wyoming, Oklahoma, Vermont, Ohio, Nevada, Oregon, New Hampshire, New York, North Dakota, Virginia, Arkansas, and West Virginia.

<sup>2</sup> Illinois grants a "provisional" certificate, not considered because it is apparently temporary in nature.



Certification by examination only is of course the oldest method and persists for one or more certificates in all the States but one. The most noticeable of recent changes in the examination method of certification is the growing importance of professional subjects and the addition of such subjects as agriculture, music, physical education—characterized in the summaries as the newer elementary subjects. Complete information concerning subjects given in examinations is given in the State outlines and in summary Tables 16 and 18.

No attempt has been made in this study to analyze the questions given or method of examining papers when submitted. Information concerning the agencies which prepare questions and examine papers is given in Table 7. The tendency to centralize these two functions has been shown elsewhere. Gradually the probability of obtaining a high grade of State certificate through examination alone is being eliminated. In the majority of those States which continue to grant high-grade certificates in this way examinations are becoming very cumbersome. They usually include a full program of high-school, college, and professional subjects, in addition to the traditional elementary subjects, unless the latter are represented by a prior certificate. Tables 16 and 17, which give information concerning certificates granted in this way, show that in some cases the applicant is examined in as many as 12 or 13 of the higher subjects, in addition to the usual number of traditional and some professional subjects. Unless these examinations can be taken at different times, the requirements become very burdensome and exclude the probability of a great number of applicants. Even first-grade county certificates require examination in a great many subjects, and include higher and secondary as well as professional, newer, and traditional elementary subjects (see Table 16).

Table 18 gives the number of common-school subjects and the names of the higher and secondary, newer elementary, and professional subjects in which one must be examined in order to secure a certificate in the different States. An examination of this table shows how easy it is to enter the teaching profession. Except in those States which require a minimum of academic and professional training, completion of the elementary grades, with some additional study in one or more professional and sometimes one or more of the newer elementary or secondary subjects also, enables one to become a teacher. Much depends on the examining authorities in the way of setting up standards in these States. But even at the best they are very low.

It is also relatively easy in many States to remain teaching indefinitely without specified professional or academic preparation. Unless special regulations to the contrary are made in the form of prerequisites to entrance to examinations or unless professional preparation is required for the renewal of certificates, this may result. In some

cases life certificates, or, if not so called, certificates continuously renewable or exchangeable, and hence practically of the same significance, may be obtained without such requirements. These conditions prevail in the following 14 States: Alabama, Arizona, Arkansas, Colorado, Louisiana, Kansas, Kentucky, Mississippi, Nebraska, New York, Pennsylvania, Rhode Island, South Dakota (until 1921), and Texas. In at least 5 other States life certificates may be issued on examination without educational prerequisites higher than high-school graduation or 12 weeks of professional preparation.

There are 29 States which either do not issue certificates designated as for "life," or in which nominally some higher education is required for them. However, equivalency examinations or possibility of continuous renewals on requirements more or less indefinite probably nullify the apparent requirement in many cases.

Among the States which have recently reorganized their laws concerning certification there is a noticeable tendency to enact those whose purpose is to increase gradually the minimum scholarship requirements exacted. The Delaware law recently enacted is a good example. The lowest grade certificate granted on examination is to be discontinued after 1930; the next lowest, which requires high-school graduation and six weeks of professional training, is to be discontinued in 1935. The lowest certificate recognized thereafter requires graduation from a two-year normal school in addition to the completion of a four-year high school. The West Virginia law is based on the same plan, increasing qualifications up to 1926 and permitting the State board to regulate them thereafter. Such an arrangement makes it possible to increase requirements for certificates without depleting the supply of teachers. In some States the practice of formulating a law in such a way as gradually to increase the requirements extending over a period of several years applies to other than the lowest grade of certificate. Delaware, West Virginia, Wisconsin, and South Dakota are among the States which passed increasing requirement laws in the 1919 session of their legislatures. The following excerpts from the South Dakota law are given here to illustrate this practice:

No teacher shall be entitled to receive more than two third-grade certificates: *Provided*, That from and after the 1st day of September, 1920, every applicant for a third-grade certificate, by examination or otherwise, must present evidence of having attended an approved normal school or some other school having a normal department approved by the superintendent of public instruction six weeks in the aggregate.

*Provided*, That from and after September 1, 1921, every applicant for life diploma, by examination or otherwise, must present evidence of having attended an approved normal school or educational department of an approved college or university 24 weeks in the aggregate.

*Provided further*, That from and after September 1, 1920, every applicant for State certificate, by examination or otherwise, must present evidence of having attended an approved normal school or educational department of an approved college or university 18 weeks in the aggregate.

## PROVISIONS FOR RENEWING LOW-GRADE CERTIFICATES.

Various expedients are used to prevent one person teaching too long on the lowest-grade certificate. It is a common practice to issue a limited number of these certificates, and generally they are not subject to renewal. In some States the holders of lower-grade certificates are eligible to positions only when the supply of teachers with higher-grade certificates is exhausted. Delaware and Maryland are examples of such States. Rhode Island requires the holder of the lowest-grade certificate to qualify for a higher grade within two years. Other methods used are to require applicants for renewals to attend summer schools for teachers or to obtain a minimum amount of professional training before the application is granted.

Full information concerning renewal of the lowest grade of certificates is given on page 29. A few States do not grant any third-grade certificates. Utah does not renew second-grade certificates, expecting the holder to qualify for a higher grade. Nevada renews neither second nor third grade certificates. Twelve other States renew only on condition that the applicants acquire additional professional training. Five other States prescribe requirements or demand the completion of reading-circle work, making in all 34 States which either do not renew certificates of the lowest grade or make it necessary to have some professional training as well as experience before renewal. Nine States renew on experience only. One makes renewal dependent upon the standing in examination. In one State, renewal depends on recommendation of the superintendent in charge, and in one, professional spirit and required reading are necessary. Five States limit the number of certificates of the lowest grade which are issued or renewed. Indications are that the most advanced steps toward raising the qualifications of teachers, as measured by the certificates granted, are being taken in those States in which the whole matter is under the control of the State and that county and local authorities are more lax in their requirements.

## SUMMARY OF RENEWAL REQUIREMENTS.

*Successful experience only:* Maine, Rhode Island, Alabama, Missouri,<sup>4</sup> Wyoming, Oregon, New Hampshire,<sup>5</sup> Arkansas.

*Consecutive experience:* Kentucky.

*Discretion of board:* Massachusetts, Connecticut, Ohio, California.

*Standing in examination only:* Michigan.

*Recommendation of superintendent:* Vermont.

*Prescribed requirements:* New York, Tennessee.

*Reading:* North Carolina, Wisconsin,<sup>4</sup> North Dakota,<sup>4</sup> Iowa.<sup>4</sup>

*Institute attendance:* Oklahoma.<sup>4</sup>

*Attendance at professional schools or college work:* New Jersey, Delaware, Maryland, Virginia, Florida, Oklahoma,<sup>4</sup> Illinois, Wisconsin,<sup>4</sup> North Dakota,<sup>4</sup> Utah, Idaho, Washington.

<sup>4</sup> See also other regulations.



*Not renewable:* West Virginia, New Hampshire,<sup>5</sup> South Carolina, Georgia, Massachusetts, Louisiana, Texas, Indiana, Minnesota,<sup>5</sup> South Dakota, Nebraska, Kansas, Montana, Colorado, New Mexico,<sup>4</sup> Nevada,<sup>4</sup> Arizona.

*Limited number of times:* Michigan,<sup>4</sup> Missouri,<sup>4</sup> Washington.<sup>4</sup>

*Professional spirit; required reading:* Iowa.<sup>4</sup>

*Limited issue:* New Mexico.<sup>4</sup> Nevada.<sup>4</sup>

**REGULATIONS CONCERNING RENEWAL AND REISSUANCE OF CERTIFICATES OF LOWEST GRADE (SUCCESSFUL TEACHING REQUIRED WHETHER MENTIONED OR NOT.)**

States.	Renewal regulations.
<b>N. Atlantic Div.:</b>	
Maine.....	Renewable on successful experience.
New Hampshire ...	Permits not renewable. Elementary license one or three years.
Vermont.....	Recommendation superintendent.
Rhode Island.....	Four years, then six years' successful experience.
Massachusetts.....	Discretion of board or committee.
Connecticut.....	Discretion of committee.
New York.....	Prescribed conditions.
New Jersey.....	Once. Required credits.
Pennsylvania.....	May teach five terms only on provisional certificate.
<b>S. Atlantic Div.:</b>	
Delaware.....	Second and third grade—professional preparation.
Maryland.....	Third grade on completion prescribed professional training. No teacher holding this certificate may be engaged unless supply of higher certificated teachers is exhausted.
Virginia.....	Second grade—summer school attendance or equivalent.
West Virginia.....	Not renewable.
North Carolina.....	Reading circle work.
South Carolina.....	Third grade not renewable. Second grade at option of board.
Georgia.....	Nonrenewable.
Florida.....	Second and third grades—attendance at professional school.
<b>S. Central Div.:</b>	
Kentucky.....	Consecutive experience.
Tennessee.....	Prescribed requirements.
Alabama.....	Limited number of times.
Mississippi.....	Not renewable.
Louisiana.....	Not renewable. Second and third grade certificates for one year through application of summer school credits.
Texas.....	Not renewable.
Arkansas.....	Second grade twice. Third grade once.
Oklahoma.....	Summer school and institute attendance. Renewed once.
<b>N. Central Div.:</b>	
Ohio.....	Not renewable.
Illinois.....	Second grade renewable first time after 6 months' additional professional training, second time 18 weeks' professional training.
Michigan.....	Once only. Average must be 85.

<sup>4</sup> See also other regulations.

<sup>5</sup> Permits. These seem to partake of the nature of both temporary and third-grade certificates. In New Hampshire the next lowest certificate may be renewed. In Minnesota the next lowest certificate must be exchanged for the next higher grade.

States.	Renewal regulations.
N. Central Div.—Continued.	
Wisconsin.....	Attendance at professional school. Reading circle course.
Minnesota.....	Permits nonrenewable. Limited rural elementary may be exchanged for second-class certificate under certain regulations.
Iowa.....	Second and third grade certificate renewed. Professional spirit and prescribed reading.
Missouri.....	Second and third grade renewable once. Not more than four of the latter granted.
North Dakota.....	Reading circle work and six weeks at professional school.
South Dakota.....	Not renewable.
Nebraska.....	Not renewable.
Kansas.....	Not renewable.
Western Div.:	
Montana.....	Not renewable.
Wyoming.....	Renewable once.
Colorado.....	Not renewable.
New Mexico.....	Not renewable. Not more than two issued to any person.
Arizona.....	Not renewable.
Utah.....	Third grade renewable for prescribed work of college grade. Second grade not renewable, must fulfill requirements for higher grade certificate.
Nevada.....	Second and third grade not renewable. Not more than one third-grade granted to any person.
Idaho.....	Six weeks at summer school for teachers.
Washington.....	Renewed twice for attendance at professional school.
California.....	Option of board.
Oregon.....	Six months' experience.

### RECIPROCAL RELATIONS AMONG STATES.

On pages 32 to 35 are given excerpts from State laws or regulations concerning the recognition of certificates from other States and diplomas and credits from institutions located in other States. The following States do not recognize certificates granted in other States: Colorado, Connecticut, Massachusetts, New Hampshire, Ohio, Oklahoma, North Dakota, West Virginia, Louisiana, and Florida. Of these, Colorado, New Hampshire, Florida, North Dakota, West Virginia, Ohio, and Louisiana recognize graduation or credits from standard institutions outside the State. It therefore follows that, while certificates issued on credentials from such institutions would not be recognized in these States, other certificates could be issued on the basis of recognized credentials, provided the requirements are met.

Connecticut is the only State which issues certificates wholly on the basis of examination and does not accept credits from institutions either within or without the State. Generally, State laws require that institutions whose credits are recognized toward certification shall exact entrance requirements and maintain standards equivalent to those within the State. Nearly all the States which recognize outside institutions keep lists of those "accredited" or "approved."

Full reciprocal relations do not exist even among those States which recognize certificates from other States under certain conditions. Idaho, Kansas, Maine, Montana, New York, North Carolina, and Rhode Island recognize only State certificates or those issued by State departments or State officers. Michigan, Nevada, Nebraska, Indiana, New Jersey, and Utah accept State life certificates only from other States. New Mexico and Washington give credit, subject for subject, if accredited by State departments, and New Mexico and Nebraska require in addition that reciprocal relations shall have been established with the other State. In Wisconsin and Utah two years' experience within the State is required before outside certificates are recognized. Credentials from colleges and universities are more generally recognized than are those from normal schools. Many certificates based on normal school graduation are granted by schools themselves or their boards of control, and their validity is confined to the State.

The following States recognize for or toward certification graduation from "approved," "acceptable," "accredited," "reputable," or "equivalent" institutions: Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Missouri, Maryland, Massachusetts, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, North Carolina, Oregon, Ohio, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, Wyoming, Colorado, Delaware, Arkansas, Arizona, California, Iowa, and South Carolina—42 in all. Kentucky, Oklahoma, and Washington specify "State institutions" in the scholarship requirements for certificates. The regulations for Alabama do not state whether institutions outside the State are recognized or not. Michigan recognizes State institutions only, except for special certificates. Connecticut requires an examination.

#### SUSPENSION AND REVOCATION OF CERTIFICATES. \

Table 19 presents the most essential provisions of the laws of different States concerning the suspension and revocation of certificates. The grounds upon which this action is taken are similar in all States, and the right of appeal is generally given as protection to the teacher against injustice. The officers empowered to revoke certificates are usually those who issue them, and appeals are taken to superior boards or officers.

#### FEES AND MINIMUM AGE REQUIREMENTS.

Information concerning fees, when they are required; the disposal of the money so collected; and minimum age requirements, when there are any, are given in Table 20. A few States do not specify

any age minimum. A number require the applicant for a certificate to be at least 18 years of age.

Thirty States require fees ranging from 50 cents to \$10. Usually the higher fees are charged for the higher grades of certificate. The other 18 States require no fee. The money collected from fees is used in the majority of States to pay for administering the certification department or for the support of teachers' institutes.

#### A DIGEST OF THE LAWS AND REGULATIONS BEARING UPON THE RECOGNITION OF DIPLOMAS AND CERTIFICATES IN EACH OF THE STATES.

*Alabama.*—Recognizes other State certificates of equivalent requirements and standard institutions.

*Arizona.*—Accepts credits from institutions outside of the State as a basis for certification. Recognizes certificates from other States if qualifications are equivalent to those demanded in Arizona.

*Arkansas.*—State and professional licenses based on certificates from other States and degrees from the credited institutions outside the State will be recognized if applicants have at least 12 months' experience, in case State certificates are desired, and 6 months' experience if professional licenses are desired.

*California.*—Recognizes life diplomas or certificates from other States if they represent experience and scholarship equivalent to California requirements. California also keeps a list of recognized institutions of other States which meet the approval of the State board as satisfying requirements for California certificates.

*Colorado.*—Does not recognize certificates from other States. College credits and degrees are recognized under the same conditions, whether obtained from institutions within or without the State.

*Connecticut.*—Does not recognize certificates from other States, or college or normal school diplomas or certificates.

*Delaware.*—Certificates issued by other States will be accepted which indicate qualifications equal to or superior to those demanded for securing certificates in this State. Also credits from standard institutions are accepted.

*Florida.*—Does not recognize certificates from other States. A courtesy temporary certificate may be issued to holders of certificates from other States for a period of 2 months, during which time the applicant must qualify for a Florida certificate. Graduation from standard institutions is recognized.

*Georgia.*—Teachers holding certificates granted in another State which are the equivalent of requirements in Georgia are granted equivalent certificates. Approved institution's credits are recognized for certification, but applicant must be examined in Georgia history, geography, and school law.

*Idaho.*—The State board of education issues Idaho State certificates to graduates of State normal schools and colleges of other States if said institutions are approved by the State board of education. The State board may also indorse State life certificates from other States. All applicants must be engaged in teaching within 2 years of the date of application, have at least 18 months' experience and credit in examination in Idaho school law and course of study.

*Illinois.*—The State superintendent of public instruction and the county superintendent of schools may recognize and honor any certificate from another State obtained under conditions similar to those in Illinois. Institutions outside State recognized on the same basis as those within it.

*Indiana.*—The State superintendent countersigns life State certificates from other States of equivalent requirements. Also recognizes training in higher institutions of other States for certificates.

*Iowa.*—Each individual application is decided on its merits. A new certificate is issued to the holder of a certificate from another State if the conditions warrant the recognition of the certificate presented for that purpose. Iowa also recognizes training in approved colleges of other States for certification.

*Kansas.*—The State board of education recognizes State certificates issued in other States secured by fulfilling demands equivalent to those of Kansas.

*Kentucky.*—State board of education may validate certificates of other States which are not of a lower standard than the State certificate of Kentucky, and may approve or disapprove such certificates of qualification as may be recognized by county superintendents and county boards of education in this State. The State board of education is authorized to validate State diplomas and certificates from other States on a reciprocity plan.

*Louisiana.*—Teachers' certificates of other States are not recognized in Louisiana. Baccalaureate graduates of State approved colleges and State approved normal schools of other States are issued first-grade certificates in Louisiana upon presentation of their diplomas accompanied by a \$5 recordation fee.

*Maine.*—Certificates may, under the rules prescribed by the State superintendent, be granted to persons holding State certificates granted by authority of other States. Recognizes institutions outside the State of equal standing with those within as a basis for certification.

*Maryland.*—The conditions under which certificates, diplomas, and degrees of institutions of the State of Maryland and of other States will be recognized shall be determined by the State superintendent of schools.

*Massachusetts.*—No legal provision for reciprocity in the issuance of certificates. Colleges outside State with standards equal to those within are recognized on same basis for certification.

*Michigan.*—The State board of education may in its discretion recognize life State certificates from other States if the requirements are equivalent to those demanded in Michigan. Grants special certificates on basis of credits from institutions outside the State.

*Minnesota.*—The State superintendent may accept or indorse certificates from other States on such conditions as he may prescribe. Also recognizes for certification credits from institutions outside State with standards equivalent to those of University of Minnesota.

*Mississippi.*—To persons holding a certificate, license, or diploma with qualifications equal to those of Mississippi, authorizing them to teach in another State, a first-grade license shall be granted to be valid for a length of time granted in original State. Recognizes credits from approved institutions having four-year course.

*Missouri.*—Certificates from States other than Missouri which are based on requirements equal to those of Missouri, and graduation from schools outside of Missouri whose standards are equal to those of the schools of Missouri, are recognized.

*Montana.*—Teachers with successful experience of at least 35 months, who have obtained from State departments of other States by means of examination certificates good in all schools of the State in which issued and valid for at least 5 years, may obtain Montana certificates if the requirements were fully equal to those of Montana. Graduates of advanced normal courses in institutions equivalent to those in Montana, whose diplomas entitle them to teach without examination in all of the schools of the State where located, who have taught successfully 18 months, at least 9 of them after graduation, are eligible to Montana State certificates and life diplomas.

*Nebraska.*—Certificates or diplomas conferring the right to teach for life in other States are accepted in Nebraska. Also grades earned in State examinations that meet the requirements of Nebraska are accepted, if the States have reciprocal rela-

tions with this State. Recognize credits from standard colleges outside the State if applicant has experience in Nebraska.

*Nevada.*—Credentials showing graduation from schools of other States whose requirements are equal to those of Nevada shall be accepted in lieu of examination. Life certificates may also be submitted as evidence of fitness of teaching, and if they are satisfactory to the State board of education they may issue a certificate valid in Nevada for such grade as they may deem proper.

*New Hampshire.*—Laws do not allow reciprocity. Diplomas from normal schools equal to those of New Hampshire may be accepted if applicant files experience and passes examination in New Hampshire school law and program of studies.

*New Jersey.*—New Jersey recognizes diplomas from normal schools of another State which require equivalent work and entrance requirements to the New Jersey State normal schools. Also indorses permanent State certificates granted in another State if the requirements are equivalent to life certificates in New Jersey. It also recognizes completion of courses in approved colleges, universities, or technical schools as credit toward certification.

*New Mexico.*—Certificates from other States, if valid, may be credited subject for subject if questions on which certificate is granted were prepared and all papers graded by a State department of education in the State issuing certificate, provided the State accepts like grades granted by New Mexico. Credits from colleges of recognized standing with North Central Association are recognized on same basis as those in the State.

*New York.*—The commissioner of education may in his discretion indorse (1) a diploma issued by a normal school of another State, (2) a certificate issued by the chief education officer or State board of another State. Such indorsement confers on the holder of such diploma or certificate the privileges conferred by law on the holder of a normal school diploma or State certificate issued in this State. Credits recognized from institutions registered by regents of the State of New York.

*North Carolina.*—Certificates are issued to persons who hold State certificates of other States requiring qualifications equivalent to those required in North Carolina and who pass an examination in North Carolina history and school law. Credits from standard institutions outside the State recognized on same basis as from those within.

*North Dakota.*—Recognizes credits of institutions outside the State as a basis for North Dakota certificates.

*Ohio.*—State has no law recognizing certificates from other States. Recognizes credits from approved institutions as basis for certification.

*Oklahoma.*—No provision to holders of State certificates from other States or credits from institutions in other States.

*Oregon.*—Certificates issued upon examination by other States shall be accepted by the superintendent of instruction for corresponding certificates upon certain conditions and equivalent credits for any subject or subjects may be accepted. Also credits for teaching experience and credits from standard institutions outside the State.

*Pennsylvania.*—State superintendent of public instruction may validate in Pennsylvania teachers' certificates issued by other States or by State normal schools or colleges of other States whose requirements are equivalent to those of this Commonwealth. Recognizes all institutions approved by Pennsylvania college and university council.

*Rhode Island.*—Interstate comity is practiced. The State department does not indorse certificates from other States or grant Rhode Island certificates on certificates from outside the State. It does not recognize certificates from out of the State in any way, unless the certificates have been issued by State officers. When certificates issued by the State department are presented, an attempt is made to evaluate the qualifications mentioned in the certificates in terms of Rhode Island requirements, and credit is granted accordingly. Diplomas issued by institutions outside the States

are accepted as reasonable proof of what they attest, if the institution granting the diploma is reputable.

*South Carolina.*—The State board of education will grant certificates on presentation of diplomas from reputable colleges and universities of as high rank as those in South Carolina when accompanied by the scholastic record and teaching experience of the applicant. The same board confirms State certificates from other States when the qualifications demanded are equivalent to those demanded in South Carolina, provided that such States grant reciprocal credit to South Carolina State licensees.

*South Dakota.*—Diplomas from other States may be accepted in lieu of subjects required for a life diploma. The State superintendent may validate certificates issued by other departments of education which are of the rank of the life diploma, State certificate, and first and second grade certificates issued in South Dakota, provided the requirements upon which they are based are equivalent to the requirements for corresponding certificates in South Dakota. Recognizes credits from all approved institutions of equal rank with those of South Dakota.

*Tennessee.*—Certificates from other States whose standards of normal school admission and graduation are no lower than that of this State are validated. Reciprocal certification relations are maintained with most of the Southern States.

*Texas.*—Holders of diploma from a State normal college or of a life certificate in another State upon becoming a citizen of Texas, may receive a Texas permanent certificate provided the requirements are equal to those of Texas. Diplomas from colleges or universities recognized by the State superintendent of public instruction upon recommendation of the State board of examiners may be accepted as qualification for a State life certificate.

*Utah.*—Certificates and diplomas issued in other States may be recognized in Utah, provided they are granted on standards equal to Utah requirements. Institutions issuing diplomas must be of standard grade.

*Vermont.*—Reciprocity with other States may be established by the commissioner of education. Applicants must have at least 30 weeks' teaching experience. Recognized graduates from normal schools or colleges in other States are eligible for certificates, on the same terms as are graduates from Vermont institutions.

*Virginia.*—Certificates from States other than Virginia, which are not local and which represent training equivalent to that required for Virginia State certificates and satisfactory experience, are recognized as certificates to teach. All standard colleges are recognized for credits toward certification.

*Washington.*—Credits of 90 per cent or over on examination in other States, when papers are graded by State departments, are accepted, subject for subject, in accordance with the rules and regulations of the State board of education. The State board of education recognizes only grades earned in Washington institutions.\*

*West Virginia.*—This State does not recognize certificates from other States. It does recognize credentials from institutions outside of the State which are accredited by the State boards of education on the basis of equivalent work to that done by institutions within the State.

*Wisconsin.*—Holders of certificates from other States may receive Wisconsin unlimited State certificates, provided certificates held are equivalent in required qualifications to the Wisconsin certificate. Applicants must have two years' experience in Wisconsin before this certificate can be made permanent. Also recognizes for certification courses given in institutions whose standards are equivalent to those of Wisconsin institutions.

*Wyoming.*—Recognizes credits from standard institutions in other States as basis for certificates, and certificates from other States when requirements meet the requirements for Wyoming certificates.

\*The law of Washington provides that the State board of education may recognize credits earned in institutions outside the State toward certification. According to present practice apparently the board does not do so.

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## STATE LAWS AND REGULATIONS CONCERNING TEACHERS' CERTIFICATES.

## ALABAMA.

Name of certificate.	Issued by--	Valid in--		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by--	Examined by--	
Life certificate.....	State board of education.	In State....	All schools....	For life.....		5 years' tenure of first-grade certificate, 40 months teaching on first-grade certificate.	Division of teacher-training and certification.	Division of teacher certification.	(1) Examination same as for first-grade certificate, with additional examination in history of education and at least two other professional subjects. (2) Evidence to State board from the county board that applicant has high degree of efficiency and professional attainment. Teaching experience in writing.
First-grade certificate (without examination).	do.....	do.....	do.....	6 years.....	Extended 1 year on professional study and reading circle study.		do.....	do.....	Issued to graduates of Class A normal schools of Alabama, and other institutions of higher grade with equivalent requirements, who have completed a course in education approved by the State board.
First-grade certificate (with examination).	do.....	do.....	do.....	do.....	May be renewed for 1 year at a time; not more than 4 years.		Division of teacher training and certification.	do.....	Examination in advanced English, physics, school law of Alabama, plane geometry, elementary psychology, and algebra, in addition to subjects required for second-grade certificate.
Second-grade certificate.	do.....	do.....	do.....	4 years.....	do.....		do.....	do.....	Examination in arithmetic, history of Alabama, grammar, literature, geography, history and civics, theory and practice of teaching, school management, in addition to these subjects required for third-grade certificate.

## State laws and regulations concerning teachers' certificates—Continued.

## ALABAMA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Third-grade certificate.	State board of education	In State.....	All schools.....	2 years.....	May be renewed for 1 year at a time; not more than 4 years.	.....	Division of teacher training and certification.	Division of teacher certification.	Examination in orthography, reading, penmanship, grammar, arithmetic, United States history, geography, physiology, hygiene, agriculture, theory and practice of teaching.
Certificate or qualification to teach (validation of certificates issued in other States).	.....do.....	.....do.....	.....do.....	Same as original or at the discretion of the State board.	Discretion of State board.	.....	.....	.....	Issued on diploma and license from other States demanding qualifications equivalent to those in Alabama.

Special and provisional certificates under regulations prescribed by the State board.

1. A provisional license will not be issued except upon request of a county or city superintendent, is not renewable, and is not subject to extension.

2. A provisional license will not be granted to the holder of a license that is valid in Alabama or any other State, nor to any applicant who has been rejected on a regular examination within 12 months next preceding the date of such application, except that a license of lower grade than the one applied for on such examination may, in the discretion of the State board, be granted.

3. The general policy of the State department of education will be to require graduation from a standard college as a condition precedent to the issuance of a first-grade license; of graduation from a standard normal school for the issuance of a second-grade license; and of graduation from a standard high school employing three or more teachers who give their entire time to high-school work for the issuance of a third-grade license; except that the holder of an Alabama license who has discontinued teaching for valid reasons and whose license has expired, may be granted a license of the same grade as the one last held.

## ARIZONA.

Life certificate.....	State board of education.	State.....	All.....	Life.....	15 years.....	State board of examiners.	State board of examiners.	Holders of first-grade certificate with 15 years' successful experience, 10 of which have been in the public schools of Arizona, who, in addition, have passed an examination in psychology, pedagogy, and school management with an average of 80, with no grade less than 75.

Special certificate: Music, drawing, agriculture, commercial sub- jects, kindergar- ten, manual training, house- hold arts. First-grade certi- ficate (without examination).	State board of examiners.	Special sub- jects only.	4 years.	Renewable for 4 years.	None.	do.	do.	Examination with an average of not less than 80 per cent, or credentials in the special subject applicant wishes to teach.
	do.	All.	do.	Renewable for 4 years on 2 years' suc- cessful teaching.	None or (by (d) 2 years).	do.	do.	Without examination (a) to graduates of any normal school the requirements of which are equivalent to those of the normal schools of Ari- zona, and are accredited by the State board of education, and (b) to graduates of uni- versities and colleges of standard rank who have credit for at least 5 semester hours in education and psy- chology and in such subjects as the board may prescribe, (c) to holders of unlimited life certificates and equiva- lent credentials from other States, (d) to holders of an unexpired teacher's certifi- cate and 2 years' experience in teaching.
First-grade certi- ficate (on exami- nation).	do.	do.	do.	do.		do.	do.	Examination in algebra, United States history, civics, physiology and hygiene, orthography, penmanship, composition, reading, teach- ing methods, arithmetic, school laws of Arizona, gram- mar, geography. An average of 80 per cent is required with no grade of less than 70 per cent in arithmetic, or- thography, and grammar, and no grade of less than 60 per cent in any of the other subjects.
Primary certificate	do.	Primary schools.	do.	Renewable for 4 years.		do.	do.	Graduation from schools ac- credited by the State board of education, whose course includes special preparation for primary work.

## State laws and regulations concerning teachers' certificates—Continued.

## ARIZONA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Second-grade certificate.	State board of examiners.	State.....	C o m m o n schools.	2 years.....	Nonrenewable	.....	State board of examiners.	State board of examiners.	Examination same as for first-grade certificate, omitting algebra. An average of 70 per cent is required, with at least 65 per cent in arithmetic, orthography, and grammar, and no other branch below 50 per cent.

NOTE.—“Credentials” means graduation from duly accredited school specializing in branches applicant desires to teach. No applicant shall receive a commercial certificate unless he has completed at least 3 years of high-school work or its equivalent.

Two kinds of domestic science certificates are granted, one to teach in stenographic department and one for sewing.

Examinations for those not holding credentials are as follows: For drawing certificate—Methods of teaching and terms, perspective, landscape, color, principles of design, history of art, simple mechanical drawings and composition. Music—Definition of terms, key signatures, staffs, location, notation, scales, intervals, rhythm, transposition, pitch, plans for teaching, writing of music, and statement concerning experience, ability to sing and play, and to instruct. Business department—Shorthand, bookkeeping, commercial law, writing, typewriting, English, spelling and composition. Domestic arts—Cooking or sewing. Agriculture—Agronomy, horticulture, animal husbandry, poultry, farm mechanics.

Applicant for special subject certificates by examination must hold a first or second grade certificate, or take regular examination in the additional subjects required for them.

## ARKANSAS.

State certificate.....	State superintendent.	In State....	All schools....	For life.....	(a) 20 months. (b) 12 months.	State superintendent.	State superintendent.	(a) Examination in branches required for professional license and in addition in geometry, mental philosophy, Latin grammar and composition, and zoology, botany, physics, Caesar, Virgil and Cicero. Grade of 80 per cent on all subjects is required. Average, 90 per cent. (b) Degree from accredited institution.

Professional license	do.	do.	do.	6 years	Renewable on compliance with rules of State superintendent based on reading course and successful teaching.	(a) None. (b) 6 months.	do.	do.	(a) Examination same as required for first-grade license and in addition in algebra, plane geometry, general history, rhetoric, civil government, also based on certificates granted in other States' normal schools, diplomas and degrees from educational institutions if the examination required or the course of study on which original was granted is of the same standard required for State or professional licenses in Arkansas. Average, 85 per cent, minimum, 75 per cent.
Normal training certificate.	do.	do.	do.	(a) 2 years. (b) 6 years.	Based on compliance with regulations of State board.	(a) None. (b) 12 months	do.	do.	(b) Degree from accredited institution. Graduation from normal training departments in certain high schools without examination for 2 years. Validated for 6 years on completion of 12 months' successful experience if candidate pursues reading course prescribed by the State superintendent.
State normal school diploma University of Arkansas degree.	Normal school.	do.	do.	6 years.	Renewable for life.	do.	do.	do.	Graduation from State normal schools. Completion of 2-year course in University of Arkansas with prescribed courses in education.
County license of the first grade. <sup>1</sup>	County superintendent.	do.	In county.	2 years.	Renewable indefinitely for institution attendance.	do.	do.	County superintendent.	Examination same as for second-grade certificate and in addition examination in civil government and algebra. Average, 85 per cent, minimum, 75 per cent. Applicant must send papers upon which first-grade county certificate was issued to State superintendent with fee of \$1. Minimum grade, 85 per cent.
State first-grade certificate.	State superintendent.	do.	State.	do.	Renewable indefinitely.	Same as first-grade county certificate and 12 months in addition.	do.	State superintendent.	Completion of prescribed course in State normal schools. On examination or in any other way that the State board may direct.
Rural school certificate. Special State certificate.	Normal school State board of education.	do.	Rural schools Special subjects.	do.	do.	do.	do.	State board.	

<sup>1</sup> A county first-grade certificate may be made State wide when the papers are reviewed by the State superintendent. It is good in the State for the period issued.

## State laws and regulations concerning teachers' certificates. Continued.

## ARKANSAS. Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by	Examined by	
Special subjects certificate.	County superintendent.	In county.	Special subjects only.	2 years.					Examination in subject applicant desires to teach. Completion of 3-year normal course required in home economics.
County license of second grade.	do.	do.	All schools.	1 year.	Renewable twice.		State board.	State board.	Examination same as for third grade certificate, and in addition examination in history of Arkansas and physiology and theory and art of teaching. Average, 75 per cent; minimum, 60 per cent.
County license of third grade.	do.	do.	do.	6 months.	Renewable once.		do.	do.	Examination in orthography, reading, penmanship, English grammar, arithmetic, geography, United States history, and elementary agriculture. Average, 75 per cent; minimum, 60 per cent.

## CALIFORNIA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by	Examined by	
Life diploma for high schools.	State board of education.	In the State.	High schools or grammar schools.	Life.		48 months, 21 months of which is in California schools.			Issued to those who have held for 1 year a valid county or city and county certificate, corresponding to grade to the diploma applied for. On presentation of a resolution recommending the granting of a state diploma, signed by at least three-fourths of the board of education under whom the applicant has taught.



Life diploma for elementary schools.	.do.	.do.	Elementary schools.	.do.	.do.	Same as for life diploma for high schools.
Life diploma for kindergartens and primary schools.	.do.	.do.	In kindergarten and primary grades.	.do.	.do.	Do.
Life diploma special.	.do.	.do.	Branches and grades in named certificate.	.do.	.do.	Do.
High school certificate.	County board of education.	In the county.	Secondary or elementary schools.	6 years. <sup>1</sup>	Renewable at the option of the county board. May be permanent after 5 years' experience; second renewal is permanent.	(a) Issued to holders of high school credentials, approved by the State board. Minimum requirements as follows: Graduation from an accredited 4-year college course, in addition to a 4-year high school course, plus 1 year of graduate study in an approved institution, one-half year of which was devoted to academic study, and the remainder in a practice school of secondary grade in a university or normal school, and in addition, a recommendation for a high-school certificate from the faculty of such higher institution. (b) To holders of special credentials from the State board of education given on 17 months' successful experience and credentials as above. Said credentials sometimes determined by examination. (c) To holders of high-school certificates, issued by another city or county board in State of California.

<sup>1</sup> The State board of education issues "credentials" for certificates at its discretion. Credentials for high-school certificates are issued to applicants having the equivalent of a diploma of graduation from University of California and 1 year graduate work courses, including a prescribed amount of pedagogy. Credentials for elementary certificates are issued to those who have the equivalent of a diploma of graduation from a California State normal school or life diploma or certificate from another State.

<sup>2</sup> Any certificate granted to a candidate who has not had at least 1 year of experience shall not be valid for longer periods than 2 years.

## State laws and regulations concerning teachers' certificates—Continued.

## CALIFORNIA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Elementary school certificate.	County board of education.	In the county.	Elementary schools and 2 years intermediate schools. If holder completed 2 years work in college and one year normal course he may teach 3d grade of intermediate schools, or 9th grade.	6 years.....	Renewable at the option of the county board. May be permanent after 5 years' experience; second renewal is permanent.	8 months or none. 12 months. 4 years.	County board of education.	County board of education.	On examination (a) candidates must have completed 4 years high school course or 4 years successful teaching experience, and passed satisfactory examination in reading, English and American composition, English and American literature, spelling, penmanship, drawing, vocal music, bookkeeping, arithmetic, algebra to quadratics, plane geometry, geography, civics, hygiene, United States history, history (ancient, medieval and modern), school law, methods of teaching, and one of the following: Physics, chemistry, biology. Without examination (a) given to holders of life diplomas or certificates from any State approved by the State board is equivalent to those in California, and (b) to holders of State normal diplomas in California or equivalent institutions approved by the State board of education, and (c) to holders of certificates from other counties or city and county of California who have had 8 months successful teaching experience, and (d) to holders of A. B. degrees in the University of California or equivalent institutions with 8 months experience or

12 units in pedagogy as prescribed by State board of education, and (e) to holders of State board credentials of elementary grade issued by the State's board of education.

Issued (1) to holders of kindergarten or primary certificates from other countries in the State; (2) to holders of diplomas of graduation from kindergarten department of any State normal school in the State; (3) to applicants having training in any institution with equivalent requirements to kindergarten department of California State normal schools; and (4) to holders of kindergarten certificates issued by the State board of education.

State board of education.  
(1) to holders of credentials approved by the State board of education, or (2) to holders of credentials issued by the State board of education. (Credentials approved by the board are granted by educational institutions. Credentials as issued by the board on compliance with equivalent requirements.)

- (1) Issued to holder of certificate in another county, and
- (2) to holder of State board high-school credentials, and
- (3) to holder of credentials of secondary grade issued by a university approved by the State board of education.

Kindergarten primary certificate.	do.	do.	Kindergartens and primary schools.	do.	do.	1 year.
Special certificate. 1. Elementary. 2. Secondary: Manual and fine arts, technical, arts, commercial, physical culture, music, miscellaneous (as citizenship, oral and dramatic expression, library craft).	do.	do.	Special branches only in— 1. Elementary grades. 2. All elementary grades.	do.	do.	do.
Temporary secondary certificate.	County superintendent.	In the county.	Secondary schools.	6 months.	Only one applicant in same county.	

**At least 3 years experience as a journeyman or its equivalent is required as a minimum for any vocational certificate.**

# CAUTION: VIBRATING

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A applicant must have diploma granted on completion of a course in the State teachers college or State normal school, at least 3 years in addition to a 4-year high-school course.

*Staphylococcus aureus*

- (1) Issued to holders of valid credentials in other countries;  
(2) to holders of credentials from normal schools; and  
(3) to holders of state board credentials.
- (1) Issued to holders of similar credentials in another country.  
17. (2) Holders of credentials from institutions authorized by state board of education or credentials issued by state board.
- As above;
- Issued on special credentials issued by state board of education.
- Issued on special credentials issued by state board of education. Applicants must also hold certificate from California state board of medical examiners or state board of dental examiners or certification of registration nurse from state board of health.

diploma exam-	State board of education.	do.	do.	5 years	Renovable for 5 years in discretion of State board of education; then renew- able for life.	24 months'			Graduation from a Colorado college maintaining standard 4-year course and requiring 4-year standard high-school course or equivalent for ad- mission. Professional train- ing equivalent to one-sixth standard 4-year course in at least three of these (one being No. 4): (1) General and edu- cational psychology; (2) his- tory of education; (3) science and principles of education; (4) practice teaching and special methods; (5) organiza- tion and management of schools; (6) philosophy, soci- ology, and anthropology. Applicant must have academic and professional attainments equivalent to above. Equiva- lency determined by the board. It may include an informal examination. Discretion of State board of education. Recommended by State board of examiners.
Upon examination.	do.	do.	do.	do.	do.	do.	State board of examiners.	State board of examiners.	
Without examina- tion.	do.	do.	do.	do.	do.	6 years' em- ployed educa- tional service in Colorado.			
Temporary certifi- cate.	do.	do.	do.	do.	Nonrenewable.	None.			Scholarship qualifications same as for State diploma.
First-grade coun- ty certificate.	County super- intendent.	In county.	All schools (if accompanied by a high-school certificate).	3 years	Renewable at the option of the coun- ty superin- tendent.	12 months	State superin- tendent.	County super- intendent.	Examination in orthography, reading, writing, arithmetic, English grammar, geogra- phy, history, and Constitu- tion of United States and the constitution of Colorado, civil government, physics, natural science, theory and practice of teaching, and school law of Colorado. If applicant is to teach in high school, examination shall ex- tend to such additional branches as are to be pursued in such schools. Same as first class, but lower percentage is required. Do.
Second-grade coun- ty certificate.	do.	do.	Elementary schools.	18 months	Not renewable.	None.	do.	do.	
Third-grade coun- ty certificate.	do.	do.	do.	9 months	do.	do.	do.	do.	
School district cer- tificate (districts of first class).	School district board.	District	All schools	Varies	Determined by district board.	Varies	Determined by district board.	Determined by district board.	Requirements determined by district board.

## State laws and regulations concerning teachers' certificates—(Continued.)

## CALIFORNIA—Continued.

Name of certificate.	Issued by	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Temporary elementary certificate.	County superintendent.	In the county.	Elementary schools.	6 months.	Only one to any applicant in same county.				(1) Issued to holders of valid certificates in other counties; (2) to holders of credentials from normal schools; and (3) to holders of State board credentials.
Temporary kindergarten certificate.	do.	do.	Kindergarten.	do.	do.				(1) Issued to holders of similar certificates in another county. (2) Holders of credentials from institutions authorized by State board of education or credentials issued by State board.
Temporary special certificate.	do.	do.	Special subjects only.						Same as above.
Attendance officer certificate.	County board.	do.							Issued on special credentials issued by State board of education.
Health and development certificate.	do.	do.							Issued on special credentials issued by State board of education. Applicants must also hold certificate from California State board of medical examiners or State board of dental examiners or certificates of registration nurse from State board of health.

California normal schools or those on list of schools accredited by the State board.

NOTE.—Preliminary certificates are given to teachers in training, who receive no salary. These are good for 2 years.

## COLORADO.

State teachers' college and normal school diploma.	Governing board of State teachers' college.	In State...	All schools....		For life.....	None.....	Applicant must have diploma granted on completion of a course in the State teachers' college or State normal school, at least 2 years in addition to a 4-year high-school course.

State diploma without examination.	State board of education.	do.	do.	5 years	Renewable for 5 years in discretion of State board of education; then renewable for life.	24 months'			Graduation from a Colorado college maintaining standard 4-year course and requiring 4-year standard high-school course or equivalent for admission. Professional training equivalent to one-sixth standard 4-year course in at least three of these (one being No. 4): (1) General and educational psychology; (2) history of education; (3) science and principles of education; (4) practice teaching and special methods; (5) organization and management of schools; (6) philosophy, sociology, and anthropology. Applicant must have academic and professional attainments equivalent to above. Equivalency determined by the board. It may include an informal examination.
Upon examination.	do.	do.	do.	do.	do.	do.	State board of examiners.	State board of examiners.	Discretion of State board of education. Recommended by State board of examiners.
Without examination.	do.	do.	do.	do.	do.	6 years' educational service in Colorado.			Scholarship qualifications same as for State diploma.
Temporary certificate.	do.	do.	do.	do.	Nonrenewable.	None.			Examination in orthography, reading, writing, arithmetic, English grammar, geography, history, and Constitution of United States and the constitution of Colorado, civil government, physics, natural science, theory and practice of teaching, and school law of Colorado. If applicant is to teach in high school, examination shall extend to such additional branches as are to be pursued in such schools.
First-grade county certificate.	County superintendent.	In county.	All schools (if accompanied by a high-school certificate).	3 years	Renewable at the option of the county superintendent.	12 months	State superintendent.	County superintendent.	Same as first class, but lower percentage is required.
Second-grade county certificate.	do.	do.	Elementary schools.	18 months.	Not renewable.	None.	do.	do.	Do.
Third-grade county certificate.	do.	do.	do.	9 months	do.	do.	do.	do.	Requirements determined by district board.
School district certificate (districts of first class).	School district board.	District	All schools	Varies	Determined by district board.	Varies	Determined by district board.	Determined by district board.	

*State laws and regulations concerning teachers' certificates—Continued.*  
CONNECTICUT.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Statutory certificate.	State board of education.	In State...	All schools....	Generally 1 year until July 1 following examination.	Renewable on evidence that holder has taught and managed successfully.	.....	State board of education.	State board of education.	Examination in statutory subjects—spelling, arithmetic, penmanship, reading, grammar, history, duties of citizenship, physiology, geography. Issued only to candidates who have made an engagement to teach.
Elementary certificate.	.....do.....	.....do.....	Elementary schools.	.....do.....	May be renewed upon evidence showing that holder has taught and managed successfully.	.....	.....do.....	.....do.....	Examination on subjects required for statutory certificates, and in addition in literature, music, drawing, and elementary science. Examination must show evidence of ability to teach subjects. In addition to examination, papers on certain assigned topics on each of the subjects required by the board.
Supervision certificate.	.....do.....	.....do.....	All schools.....	.....do.....	.....do.....	2 years' experience required in a town having a supervisory agent.	.....do.....	.....do.....	Applicant must satisfy all requirements for an elementary certificate.
Kindergarten certificate.	.....do.....	.....do.....	In kindergarten schools.	.....do.....	.....do.....	.....	.....do.....	.....do.....	Applicant must submit papers showing an acquaintance with special kindergarten activities and music and drawing, and in addition preliminary papers and examination must make an elementary certificate.
Honor certificate.	.....do.....	.....do.....	All schools.....	.....do.....	.....do.....	2 years' experience.	.....do.....	.....do.....	Candidates should notify the secretary of the State board of their willingness to show by actual exercise in teaching children that they can teach and manage with exceptional skill.
Special excellence and special preparation certificate.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....	.....do.....	.....do.....	Candidates may be required to send to the secretary of the State board a paper on the special subject of the exam-



nation before being admitted to the examination. They will be examined in algebra, geometry, physics, drawing, music and agriculture.

- 1) May be limited to persons who have successfully supervised in not less than 6 schools for 5 consecutive years in the State, and during this time have given that whole time to supervision.
- 2) Issued to persons who have satisfactorily passed examination proving their possession of knowledge, professional training, and qualifications for supervision, and a knowledge necessary for organization and management of schools, instruction of teachers, and progress and advancement of children in the several grades. They will be examined in State school laws, organization of public schools, courses of study, history of education in Connecticut, supervision and qualifications of teachers.

the. Must show literary attainments and ability to teach. Certificate must state branches applicant is capable of teaching.

Applicants must pass examination in the effects of alcohol and narcotics if they expect to teach above the third grade.

assigned to persons having made special preparation to teach special subjects on examination in special subject. It may include exercises in teaching.

Supervisor's certificate.	.....do.....	.....do.....	Indefinite.....	.....do.....	5 years' experience as supervisor or teacher.	.....do.....
Local high-school certificate.	High-school committee.	In town and district.	High-school branches named.	.....do.....	At discretion of committee.	High-school committee at the time appointed by it.
Local public-school certificate.	School visitors, school committee, or board of education.	.....do.....	In specified schools in branches named.	.....do.....	.....do.....	School visitors, school committee, or board of education.
Special subject certificate in music, home economics, kindergarten and others prescribed by State board.	State board....	State.....	Special subjects.	.....do.....	Renewable.....	State board....

## State laws and regulations concerning teachers' certificates—Continued.

## DELAWARE.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Certificate in administration and supervision.	State commissioner of education.	State.....	Administration and supervision in all schools. <sup>1</sup>	3 years.....	Renewable for 3-year periods on evidence of successful experience and professional spirit. .....do.....	5 years as administrator and teacher.	.....	.....	Graduation from a State college or university, and in addition completion of 1 year's graduate study at a recognized university; course to include public school administration, supervision, and method of teaching.
Certificate in elementary school supervision.	.....do.....	.....do.....	Elementary schools. <sup>1</sup>	.....do.....	.....do.....	3 years' experience in elementary schools as supervisor or teacher.	.....	.....	(a) Graduation from standard normal course and in addition completion of 2 years' academic work in standard college or university; course to include academic branches related to the elementary schools and elementary school methods and supervision. (b) Graduation from 4-year course of a standard college or university, which course includes work in academic branches related to the elementary school and elementary school methods and supervision.
Certificate in special supervision: Physical training, music, fine and applied arts, household arts, manual or industrial training, agriculture.	.....do.....	.....do.....	Special subjects. <sup>1</sup>	.....do.....	.....do.....	3 years' experience as supervisor or teacher.	.....	.....	Applicant must have special-ized in the branch or branches for which the certificate is issued including art of teaching and supervising special subjects and have completed 4 years of work of college grade.
Superintendent of schools' certificate.	.....do.....	.....do.....	Special school districts. <sup>1</sup>	.....do.....	.....do.....	3 years' experience as administrator, principal, or teacher.	.....	.....	Graduation from standard college or university and in addition 1 year's graduate work at standard university including elementary school

High school principal's certificate.	.....do.....	.....do.....	High schools. <sup>1</sup>	.....do.....	.....do.....	2 years' experience as principal or teacher.	.....do.....	and high-school methods, supervision, and administration. Graduation from a standard college or university and in addition a year's graduate work at standard university including high-school methods, supervision, and administration.
High and elementary school principal's certificate.	.....do.....	.....do.....	Elementary and high schools.	.....do.....	.....do.....	1 year's experience as principal or teacher.	.....do.....	Graduation from a standard college or university. Applicant must have included in the college course work in the teaching of elementary school and high-school subjects and in supervision and administration. This certificate is required in State-aided high schools and high schools rated by the commissioner of education and valid in elementary schools in the same building as such high schools. Graduation from standard college or university. Applicant's course must have included at least two high-school branches continuously pursued for 2 years, aims and methods of secondary education, and practice teaching of high-school studies.
High school teacher's certificate.	.....do.....	.....do.....	High schools State-aided or rated by commissioner of education and advanced grades of elementary schools.	.....do.....	.....do.....		.....do.....	Applicant must have specialized in the branch or branches for which the certificate is issued, including art of teaching same, and have completed 4 years of work of college grade.
Special high school teacher's certificate: Music, manual or industrial training, household arts, fine and applied arts, commercial branches, physical training, agriculture.	.....do.....	.....do.....	State-aided high schools and those rated by the commissioner of education.	.....do.....	.....do.....		.....do.....	

<sup>1</sup> Certificates in administration and supervision are required of all county superintendents. Certificates in elementary school supervision are required of assistant superintendents and elementary school supervisors. Certificates in special supervision are required from supervisors of special subjects. A superintendent of schools' certificate is required in all special school districts. A high-school principals' certificate is required in all first-class State-aided high schools.

*State laws and regulations concerning teachers' certificates—Continued.*  
**DELAWARE—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Elementary school principal's certificate.	State commissioner of education.	State.....	Elementary schools with 3 or more teachers.	3 years.....	Renewable for 3-year periods on evidence of successful experience and professional spirit.	3 years.....	.....	.....	(a) Applicant must have completed a 2-year standard normal course. Applicant must have in addition not less than a full half year's work at a recognized college or university in elementary school methods, supervision, and administration. (b) Equivalent academic and professional work in a recognized college or university.
Elementary school teacher's certificate: First grade (a)	.....do.....	.....do.....	Elementary schools.	.....do.....	.....do.....	.....	.....	.....	Completion of a 2-year professional elementary school course in a standard normal school, college, or university. Completion of 2-year professional course in kindergarten or in primary work in a standard normal school, college, or university.
First grade (b)	.....do.....	.....do.....	Kindergarten and first 3 primary grades of the elementary school.	.....do.....	.....do.....	.....	.....	.....	Graduation from a high school having a 4-year course, or the equivalent, on examination in reading, spelling, writing, arithmetic, oral and written English, geography, history of the United States and Delaware, community civics, elementary science, hygiene and sanitation, music, drawing, handwork, physical training, theory and practice of teaching, and such other subjects as may be required by the State board of education, provided that applicant
Second grade..	.....do.....	.....do.....	Elementary schools except those of special school districts.	2 years.....	May be renewed for 2 years after successful experience and two weeks' additional professional preparation in a standard institution. Additional renewals on condition as above.	.....	State commissioner of education with the approval of State board of education.	State commissioner of education.	

must have completed at least 6 weeks of professional preparation in a standard institution and shall be at least 20 years of age. Certificates of this grade will not be issued after July 1, 1935.

applicant must be at least 20 years of age and have completed at least 6 weeks of professional preparation in a standard institution, and, in addition, pass satisfactory examination in reading, spelling, penwriting, arithmetic, oral and written English, geography, history of the United States and Delaware, community civics, elementary school science, hygiene and sanitation, physical training, theory and practice of teaching, and such other subjects as may be required by the State board of education. Certificates of graduation will not be issued after July 1, 1930.

Issued under regulations prescribed by State commissioner of education to applicants who are at least 20 years of age.

Third grade.	do.	do.	do.	do.	Renewable for 1 year on evidence of successful experience and comple- tion of not less than 6 weeks of ad- ditional ac- ademic and professional preparation in a stand- ard institu- tion. Ad- ditional re- newals given on compliance with similar regulations. Not renewable unless ap- proved by State com- missioner of education.
Provisional certi- ficates, first and second grade.	County super- intendent.	County in which is issued.	.....	Until next reg- ular exam- ination.	

<sup>2</sup> No provisional certificates may be issued when it is possible to employ persons holding regularly issued certificates, and no persons shall be employed holding certificates of the third grade when it is possible to employ persons holding elementary certificates of the second grade; nor shall persons be employed holding certificates of the second grade when it is possible to employ persons holding elementary certificates of the first grade.

**NOTE.**—Principals' and teachers' certificates shall be of two classes, first and second. Such certificates when issued by the State board of education shall be of the second class, subject to classification by county and special district superintendents. Such superintendents shall keep records of kind, grade, and classes of certificates held by each principal and teacher employed and shall submit to their respective boards of education this information, a copy of which shall be transmitted to the State commissioner of education.

## State laws and regulations concerning teachers' certificates—Continued.

## FLORIDA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State life certificate	State superintendent.	State.....	All.....	Life.....		18 months high school or college teaching within the State under a State certificate.			Applicant must have valid State certificate used in Florida and must show evidence of eminent ability to teach by recommendation of three persons holding life certificates.
Graduate State certificate.	do.....	do.....	do.....	5 years.....	Made life graduate certificate after 24 months' experience and endorsement from 3 persons holding life certificates.		President of institution.		Graduation from a normal or collegiate department of the University of Florida and the Florida State College for Women or any chartered college or university in the State maintaining equal courses with the above and approved by the State board of control or an equivalent substitute, with a general average during the junior and senior years of 85 per cent and having devoted three-twentieths of their time to psychology and education.
Life primary certificate.	do.....	do.....	Primary.....	Life.....		32 months in a school of not less than 4 teachers. (a) 48 months. (b) 20 years, 10 of which are consecutive on 1st grade certificate. (c) 48 months on certificates filed.			Applicant must have 32 months' successful experience under primary certificate.
First-grade life certificate.	do.....	do.....	All.....	do.....			State board of examiners.	State board of examiners.	(a) Applicant must have two first-grade certificates, whose average grade is 90 per cent or more and one of which is valid. (b) Must file with State superintendent valid first-grade certificate and evidence of experience as in column 6. (c) Must file with State superintendent first-grade certificate with three extensions secured by attendance at summer schools.

First-grade certificate.	do.	do.	do.	5 years.		May be renewed one year for attendance at summer school.	24 months.	State board of examiners.	State board of examiners.	do.	do.	Examination same as for second-grade certificate with additional examination in algebra, and physical geography. Applicant must make average of 85 per cent with no branch below 60 per cent. Applicant must file diploma or certified copy of same showing that he or she is a regular graduate of a standard college, university, or normal school, since June 15, 1905, with student record from alma mater.
Graduate first-grade certificate.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	Examination in geometry, trigonometry, physics, botany, zoology, Latin, rhetoric, English literature, psychology general history. Average of 85 per cent and no branch below 60. Applicant must make at least an average of 80 per cent with no grade below 60 on the examination in the following studies as they relate to primary teaching: Nature study, drawing, manual training, school singing, elements of psychology. Same marks on reading, arithmetic, grammar, composition, geography, United States history. Must have one year special instruction in primary methods in recognized normal school or its equivalent. Applicant must file diploma or certified copy showing that he or she is a regular graduate of a standard college, university, or normal school, since June 15, 1905, with student record from alma mater.
State certificate.	do.	do.	do.	do.	do.	do.	24 months.	State board of examiners.	State board of examiners.	do.	do.	Examination in geometry, trigonometry, physics, botany, zoology, Latin, rhetoric, English literature, psychology general history. Average of 85 per cent and no branch below 60. Applicant must make at least an average of 80 per cent with no grade below 60 on the examination in the following studies as they relate to primary teaching: Nature study, drawing, manual training, school singing, elements of psychology. Same marks on reading, arithmetic, grammar, composition, geography, United States history. Must have one year special instruction in primary methods in recognized normal school or its equivalent. Applicant must file diploma or certified copy showing that he or she is a regular graduate of a standard college, university, or normal school, since June 15, 1905, with student record from alma mater.
Primary certificate	do.	do.	do.	4 years.	Kindergarten and grades 1-3 in schools of 4 or more teachers.	Renewable on one year's attendance at summer school.	do.	do.	do.	do.	do.	Examination in geometry, trigonometry, physics, botany, zoology, Latin, rhetoric, English literature, psychology general history. Average of 85 per cent and no branch below 60. Applicant must make at least an average of 80 per cent with no grade below 60 on the examination in the following studies as they relate to primary teaching: Nature study, drawing, manual training, school singing, elements of psychology. Same marks on reading, arithmetic, grammar, composition, geography, United States history. Must have one year special instruction in primary methods in recognized normal school or its equivalent. Applicant must file diploma or certified copy showing that he or she is a regular graduate of a standard college, university, or normal school, since June 15, 1905, with student record from alma mater.
Graduate primary certificate.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	Examination in geometry, trigonometry, physics, botany, zoology, Latin, rhetoric, English literature, psychology general history. Average of 85 per cent and no branch below 60. Applicant must make at least an average of 80 per cent with no grade below 60 on the examination in the following studies as they relate to primary teaching: Nature study, drawing, manual training, school singing, elements of psychology. Same marks on reading, arithmetic, grammar, composition, geography, United States history. Must have one year special instruction in primary methods in recognized normal school or its equivalent. Applicant must file diploma or certified copy showing that he or she is a regular graduate of a standard college, university, or normal school, since June 15, 1905, with student record from alma mater.

State board of examiners acting as commission with the State superintendent.

*State laws and regulations concerning teachers' certificates—(Continued).*  
**FLORIDA—Continued.**

Name of certificate.	Issued by.	Valid in—		Duration.	Periodicity.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by.	Examined by.	
Special certificates (any subject above those required for the second-grade certificate).	State superintendent.	State	Special subjects only.	5 years.	Renewable on one year's attendance at summer school.		State board of examiners.	State board of examiners.	Examination in special branch which applicant wishes to teach.
Graduate special certificate.	do.	do.	do.	do.	do.				
Second-grade certificate.	do.	do.	All.	3 years.	do.		State board of examiners.	State board of examiners.	Applicant must file diploma or certified copy showing that he or she is a regular graduate of a standard college, university, or normal school, since June 15, 1906, with student record from alma mater.
Third-grade certificate.	do.	do.	do.	1 year.	do.		do.	do.	Examination in arithmetic, geography, orthography, history, grammar, composition, physiology, hygiene, reading, agriculture, theory and practice of teaching, civil government. Applicant must make average of 80 per cent with no branch below 60 per cent.
Temporary certificates.	do.	County or adjoining county.	do.	Until next examination.	Until next examination.	None.	Without examination.		Same as above, except average must be 70 per cent with no branch below 60 per cent, omitting agriculture and civil government.

**GEORGIA.**

Professional normal certificate.	State board of education.	In State.	Elementary schools or high schools (see column 10).	3 years.	Renewable for an indefinite number of 7-year periods of active		State board of education.	(a) Graduation from an approved normal school, the curriculum of which is equivalent at least to a high school unit. Applicant must have



completed at least 1 year's work in 3 educational courses and passed examination given at State normal school by the normal school board under the general direction of the State board of education.

(4) If courses completed by graduation from normal school include two full courses of college grade each running for 2 years, the certificate is valid in high school grades. (5) Graduation from university summer school on similar plan of courses and examination. If courses include four subjects of college grade, the certificate is valid for high school grades.

(c) Issued also to graduates of normal schools with diploma covering requirements as in “(a)” who hold first grade general elementary certificates.

(a) Graduation from an approved college in the State with a B degree or work in which A courses in education preparatory to teaching, supervision and administration, at least 3 hours a week throughout the year. Certificate given under plan similar to that for professional normal certificates. (b) Graduates of colleges in the State as above, without described courses, who held temporary professional certificates, and have completed three professional courses in summer school, normal, or college.

teaching or supervision, subject to the regulations of the State board concerning attendance at professional school or examination in reading in state courts.

(d) Experience is required. Amount not stated.

(e) ... do ...

Professional college certificate.



County certificates: Primary certificates: Grade 1—80 per cent. Grade 2—75 per cent. Grade 3—60 per cent.	County board of education.	In county.	First four grades.	3 years. 2 years. 1 year.	First-grade certificates renewable on 3 years successful experience and completion of reading course prescribed by the State board of education.	State school commissioner.	County school commissioner.	Examination in reading, writing, spelling, arithmetic (to percentage), language (to percentage), composition, elementary geography, and new manual of methods.
General elementary certificate: Grade 1—80 per cent. Grade 2—75 per cent. Grade 3—60 per cent.	do.	do.	Elementary schools.	do.	do.	do.	do.	Same as for primary certificate, and in addition examination in arithmetic, grammar, history of the United States, civics, geography, physiology, agriculture.
High school and supervisory certificate: Grade 1—80 per cent. Grade 2—75 per cent. Grade 3—60 per cent.	do.	do.	High schools.	do.	do.	do.	do.	Examination in school management and methods of teaching high school subjects, and in three of the following groups: (1) Mathematics—Arithmetic, algebra through quadratics, plane geometry. (2) English—Grammar, composition, rhetoric, English and American literature. (3) Science—Agriculture, physics, biology, elementary physiology, botany, zoology. (4) Languages—Latin, French, German, Spanish, Greek. (5) History—Ancient, modern, English.
Equivalent certificate.	State board of education.	State.	Schools for which issued.	Time for which originally issued.	See column 5.			Holders of certificates from other States provided that equivalent qualifications are shown. Examination required in history and geography of Georgia.
Temporary professional certificate.	do.	do.	All.	Until next regular examination.				Issued to graduates of college who have not taken the prescribed courses in education, but have completed reading course prescribed for renewal of temporary certificate.

*State laws and regulations concerning teachers' certificates—Continued.*  
**IDAHO.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State life certificate.	State board of education.	State.....	All.....	For life.....	.....	5 years.....	State board of education.	State board of education.	(a) Issued to applicants who hold life certificates from other States of approved educational standing, who have had at least 5 years' experience, 2 of which have been in the State of Idaho, and who furnish evidence satisfactory to the board of their ability to instruct and manage any school, by showing that they are professionally trained or qualified. Applicant must have credit in examination in Idaho civil government, including school law, and Idaho manual of the course of study. (b) Issued to applicants who pass a thorough examination in each branch as the board may direct, and who have experience as in (a).
State certificate.....	.....do.....	.....do.....	.....do.....	8 years.....	Renewable at the discretion of the State board of education.	(a) 18 months. (b) 3 years.	.....do.....	.....do.....	(a) Issued to graduates from the advanced course (2 years' normal work above four-year high school), in State normal schools, and to graduates of A. B. or B. S. course of a department of education in colleges or universities if such institutions are approved by the State board of education; (b) or to persons who hold State life certificates issued in other States upon examination, provided all applicants have been engaged in teaching within 2 years of the date of such application, and have had at least 18 months' successful experience. In addi-

dition, applicants must have credit in an examination in Idaho civil government, school law, and manual or the course of study. (c) As to applicants who pass a thorough examination in such branches as the State board of education may direct, provided that the applicant has been successfully engaged in teaching for at least three years, and furnishes evidence satisfactory to the board of his ability to instruct and to manage a school within the State, and who holds at the time a valid first-grade certificate.

assured to applicants who present satisfactory evidence that they have completed at least 2-year course in the specialty which they desire to teach in an approved college or school which has a course of study in such specialty which has been approved by the State board of education, provided that all candidates shall first present satisfactory evidence of having completed an academic course of a grade not lower than graduation from an approved high school before taking this special course and provided that all candidates shall have credit in examination in Idaho civil government, school law, and Idaho manual of the course of study.

	.....do.....	Subjects for which issued.	8 years.....do.....	.....do.....	.....do.....
Specialist's State certificate: Music, drawing, manual training, domes- tic science, phys- ical education, kindergarten, primary, com- mercial work, agriculture, oral expression.					

NOTE.—Candidates for all classes of high-school certificate shall be required to have credit on examination in Idaho civil government, including school law, and in high school curriculum methods and organization, including special high-school conditions in Idaho. Examination is based upon texts and reports determined by the State board of education. Examination given by the State board of education.

## State laws and regulations concerning teachers' certificates—Continued.

## IDAHO—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State life high school certificate.	State board of education.	State.....	In grades 7 to 12 inclusive.	For life.....	.....	21 months or 40 months.	State board of education.	State board of education.	Issued to graduates from an approved college or university, including at least four full semesters' work in a professional course for teachers who have had at least 21 months' experience, or to holders of State high school 5-year certificate with at least 5 years' experience, aggregating not less than 40 months.
State high school 5-year certificate.	do.....	do.....	do.....	5 years.....	Not stated.....	14 months or 30 months.	.....	.....	(a) Issued to graduates from an approved college or university who have had not less than 14 months successful experience. (b) Issued to applicants on completion of not less than two years' normal school or college work above high-school grade, and not less than 30 months successful experience, provided that the college or university or normal school above referred to include at least three full semesters of professional work for teachers.
State high school 1-year certificate.	do.....	do.....	do.....	1 year.....	May be renewed for 2 years on satisfactory evidence of successful teaching for at least 8 months.	.....	.....	.....	Issued to applicants who have completed at least 2 years normal school or college work above high-school grade of quality and character satisfactory to the State board of education. The course must include at least two full semesters of professional work for teachers.

First-grade county certificate.	County superintendent.	County schools.	Elementary 5 years.	Renewable once if applicant has had 21 months' experience and 18 weeks' professional work in professional school and has received credit for such work.	7 months.	do.	State superintendent.	Issued to applicants who have passed a satisfactory examination in all the branches required for a second-grade certificate, and in addition in English literature, principles of teaching, algebra, physics, or botany, and mediæval and modern English history. Holders of valid second-grade certificates may be excused from examination in second-grade subjects if they have had seven months' teaching experience and have attended school for teachers for at least 6 weeks and received credits in at least four subjects.
Second-grade county certificate.	do.	do.	3 years.	May be renewed if holder has taught successfully not less than 14 months during the life of certificate, and has attended a professional school for teachers for at least 6 weeks and received credits in at least two subjects.	7 months.	do.	do.	Issued to applicants who have passed a satisfactory examination in all branches required for third grade certificates, and in addition in physical geography, American literature, English composition, and the cataloging and use of school libraries. Applicants may be excused from examination in third-grade subjects if they hold valid third-grade certificates, have taught 7 months, and have attended since receiving such third-grade certificate a professional school for teachers for at least 6 weeks and received credits in at least two subjects of normal school or university grade.

NOTE.—A professional school for teachers shall mean a State normal school, a State summer normal school for teachers, a department of education in the State university, or State normal school or teachers' normal institute, maintained under such conditions and restrictions as may be provided by the State board of education.

## State laws and regulations concerning teachers' certificates—Continued.

## IDAHO—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Permitence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Third-grade county certificate.	County superintendent.	County...	Elementary schools.	1 year.....	May be renewed if holder attends a professional school for teachers for a period of not less than six weeks and receives credits in at least 2 subjects or passes an examination in all the subjects required for a third-grade certificate.	.....	State board of education.	State superintendent.	Examination in orthoepy, spelling, reading penmanship, arithmetic, elementary composition, grammar, geography, history of the United States, civil government of the United States and of the State of Idaho, physiology and hygiene, school law, manual of the elementary course of study for Idaho and the elements of agriculture. In addition to passing examination as above, applicant shall have attended a professional school for teachers for at least 6 weeks and shall have received in such school standings in the school law of Idaho, in school management and in methods of teaching, reading, language, arithmetic, history and geography, provided that the provisions relative to the attendance at professional schools shall not apply to persons who have taught successfully for at least 8 months prior to July 1, 1911.

NOTE.—No person shall be granted any form of county certificate who has not completed 4 years of high-school work or its equivalent unless he has had 8 months' experience prior to May 1, 1914.



## ILLINOIS.

State elementary certificate.	State superintendent.	State.....	Elementary and 2 years of high.	4 years.....	Renewable at expiration for life on evidence of successful experience.	3 years, 2 in State on a first grade certificate.	State examining board.	State examining board.	All of the following: (1) Graduation from a recognized high school and a recognized normal school, or equivalent preparation. (2) Examination in English, educational psychology and principles of teaching. (3) Thesis on one or more elementary school subjects selected from a list furnished by the superintendent of public instruction. All of the following: (1) Graduation from a college or university, or equivalent preparation. (2) Examination in English, educational psychology, principles and methods of teaching. (3) Thesis on secondary school problem.
Four years' high-school certificate.	do.....	do.....	Elementary and high.	do.....	do.....	3 years' experience, 2 of which are in the State on first-grade certificate, high-school certificate or supervisory county certificate.	do.....	do.....	All of the following: (1) Graduation from high school and normal school or equivalent preparation. (2) Examination in English, educational psychology, sociology, history of education, school organization, administration and supervision. (3) Thesis on some problem of school administration. (a) Graduation from a recognized high school or equivalent preparation, and examination in orthography, English, spelling, civics, Illinois history, physiology, arithmetic, pedagogy, general history, algebra, and any three of the following: Botany, zoology, physics, chemistry, physiography. (b) Graduation from a recognized normal school or institution offering an equivalent preparation. The word "recognized"
Four years' supervisory certificate.	do.....	do.....	Supervision of teaching all grades.	do.....	do.....	3 years, 2 in State on county supervisory certificate.	do.....	do.....	All of the following: (1) Graduation from high school and normal school or equivalent preparation. (2) Examination in English, educational psychology, sociology, history of education, school organization, administration and supervision. (3) Thesis on some problem of school administration. (a) Graduation from a recognized high school or equivalent preparation, and examination in orthography, English, spelling, civics, Illinois history, physiology, arithmetic, pedagogy, general history, algebra, and any three of the following: Botany, zoology, physics, chemistry, physiography. (b) Graduation from a recognized normal school or institution offering an equivalent preparation. The word "recognized"
First-grade elementary school certificate.	County superintendent.	County.....	First 10 grades of common schools in high schools when inducted for same by county superintendent.	3 years.....	Renewable indefinitely for 3-year periods on evidence of successful teaching experience and professional growth satisfactory to the county superintendent.	(a) 6 months or (b) 1 year.	do.....	do.....	All of the following: (1) Graduation from a recognized high school or equivalent preparation, and examination in orthography, English, spelling, civics, Illinois history, physiology, arithmetic, pedagogy, general history, algebra, and any three of the following: Botany, zoology, physics, chemistry, physiography. (b) Graduation from a recognized normal school or institution offering an equivalent preparation. The word "recognized"

<sup>1</sup> Illinois normal schools do not require high-school graduation for entrants. Pupils are taken after completion of the tenth grade for certain courses. The word "recognized" as used here means approved by the State superintendent or State examining board.

## State laws and regulations concerning teachers' certificates—Continued.

## ILLINOIS—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
High-school certificate.	County superintendent.	County	High and seventh grades.	3 years	Renewable indefinitely for 3-year periods on evidence of successful teaching experience and professional growth satisfactory to the county superintendent.		State examining board.	State examining board.	Completion of 2 years in recognized higher institution of learning in addition to graduation from recognized high school, and examination in English, pedagogy, and 6 high-school subjects. Graduates of recognized normal schools, colleges or universities may offer certified credit in lieu of the examination in the above subjects if accompanied by recommendations of faculty regarding applicant's ability to teach in high schools.
Supervisory certificate.	do.	do.	All	do.	Renewable for 3-year periods on evidence of successful teaching or supervision and professional growth.	2 years' teaching or supervising.	do.	do.	Graduation from a recognized high school and 2 years' work in higher institution, 1 year of which shall be in a normal school or equivalent preparation and examination in English, educational psychology, history of education, school administration.
Second-grade elementary school certificate.	do.	do.	Elementary grades 9 and 10 when endorsed by county superintendent.	2 years.	Renewable on 6 months' teaching or 12 weeks' professional training. Renewable second time for 18 weeks for professional training at recognized schools and after renewed in-		do.	do.	(a) Examination in orthography, civics, Illinois history, physiology, penmanship, reading, grammar, geography, United States history, arithmetic, elementary science, pedagogy, principles and methods of the State course of study. Graduation from a recognized high school or equivalent preparation is required for admission to this examination. (b) May also be given to persons who have completed the

junior year's work in a recognized normal school or its equivalent.

Kindergarten preliminary certificate.	.....do.....	.....do.....	.....do.....	None.....	.....do.....	.....do.....	Graduation from recognized high school and from kindergarten training school or equivalent courses; in lieu of latter applicant must pass examination in English, theory and practice of kindergarten or primary work as prescribed by examining board.
Special certificate: Music, drawing, agriculture, manual training, domestic science, physical training, penmanship, bookkeeping, or other subjects authorized by examining board.	.....do.....	.....do.....	.....do.....	Renewable for 2-year periods.	.....do.....	.....do.....	Graduation from recognized high school or equivalent preparation and completion in higher institution of at least 2 years' special training in special subjects applicant desires to teach and in addition certified credits in English, and principles and methods of teaching, and evidence applicant has taught the given subjects successfully. In lieu of special training a certificate may be obtained by examination in English and principles and methods of teaching special subject or subjects.
Provisional certificates of second and third grades.	.....do.....	.....do.....	1 year.	Nonrenewable.	.....do.....	.....do.....	(a) Issued to those who fall below required average for second-grade certificate. (b) Issued without examination to persons who have completed 2 years of work in a recognized normal school or 1 year of such work if applicant completed the tenth grade. <sup>1</sup>

NOTE.—Emergency certificates of any grade may be issued by the county superintendent, good in the county, until the next examination. They may be issued to applicants who present to the county superintendent satisfactory evidence of their qualifications for such certificates.

## State laws and regulations concerning teachers' certificates—Continued.

## INDIANA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Life license .....	State board of education.	In State...	All schools.	For life.....			State board of education.	State board of education.	Applicant must be holder of professional license, and passed examination in geometry, rhetoric, general history, English literature, physics, geography, and two of the following: Chemistry, geology, zoology, with grades as for professional certificate.
Life State license (for college graduates only).	do.....	do.....	do.....	do.....		30 months, 10 of which in Indiana.	do.....	do.....	Issued to graduates of colleges who have 30 months' common school license, or higher, and have passed examination in three of the following: General history of education, school systems and law of Indiana, educational psychology, experimental psychology, child study, school systems of Europe and America, science of education and methods of instruction.
Life license by validation.	State superintendent.	do.....	do.....	do.....					Issued to those having life licenses in other States which were granted upon examination and training equivalent to those required for life licenses in Indiana.
State normal diploma.	State normal school, validated by State superintendent.	do.....	do.....	do.....		2 years.....			(1) State normal diploma, representing 3 full years in addition to 4 years of high school education. Must be countersigned by State superintendent after the required experience. (2) State normal school may grant to graduates a life certificate after 2 years' successful experience.

(Courses leading to graduation are four years in duration in addition to high school graduation.)

(a) Holder of State elementary provisional certificate on satisfactory evidence of two years' successful teaching in the public elementary schools of the State within the life of the State provisional certificate.

(b) Issued to holders of high school provisional certificates on satisfactory evidence that applicant has taught successfully two full years the subjects in which he has 2 full years' credit.

Applicant must have held two 36 months' licenses and passed examination in the following: Algebra, civil government, American literature, science of education, and two of the following: Geometry, Latin, botany, physics, Spanish, education. The average grades must be 85 per cent and no branch below 75.

(a) Graduation from any 2-year teachers' courses approved by State teachers' training board. Must be countersigned by the State superintendent.

(b) Issued to graduates from approved 4 years' teacher training courses for teaching the subjects in which applicant has earned at least two full years' credit.

Graduation from approved 2-year teachers' training courses if applicants have pursued the special teaching or supervisory courses therein in the subjects for which certificate is issued.

Life certificate.....	State teachers' training board.	.....do.....	(a) Elementary schools. (b) High schools.	.....do.....	48 months.....	State board of education.	State board of education.
Professional license.	State board of education.	.....do.....	All schools.	8 years.....	48 months.....	State board of education.	State board of education.
Provisional certificate. (a) Elementary certificate. (b) High school certificate.	Institution in which course is completed.	.....do.....	Elementary schools. High schools in certain subjects.	4 years.....	None required.	No examination given.	.....do.....
Provisional special or supervisor's certificate: Drawing, penmanship, manual training, physical culture, domestic science, agriculture, kindergarten.	State superintendent.	.....do.....	Subjects for which issued.	4 years.....	.....do.....	.....do.....	.....do.....

## State laws and regulations concerning teachers' certificates—Continued.

## INDIANA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory	Schools.				Prepared by—	Examined by—	
Special licenses	State board of education.	District schools and small towns.	Elementary grades.	3 years.					Graduation from a special 2-year course for teachers.
Common school license.	State superintendent.	In State.	do.	12 months. 24 months. 36 months.	Provision made for exemption for holders of 36-month license after 6 years' experience if applicant remains in profession.		State board.	State superintendent of public schools.	Class A qualifications with an average of 85 per cent, no branch less than 75, in examination on arithmetic, grammar, literature, history, reading, physiology, geography, science of education, orthography, writing, and scientific temperance. Class B qualifications and in addition an examination in branches enumerated above for 12 months' license with an average of 90 per cent and no branch below 80 per cent. Class C qualifications plus examinations as for 12 months' license. Average of 95 per cent, no branch below 85 per cent.
Primary licenses.	do.	do.	1st, 2d, 3d, 4th grades.	12 months. 24 months. 36 months.	do.		do.	do.	Same as for common schools licenses, except applicants answer 3 of the 8 questions given, and 3 additional questions relating to the primary phases of the subject.
High school licenses.	do.	do.	High school subjects designated.	12 months. 24 months. 36 months.	do.		do.	do.	Eligibility requirements same as for common school license. Subjects elected from those taught in high school and science of education.
Supervisor's licenses.	do.	do.	To supervise and teach special subjects.	12 months. 24 months. 36 months.	do.		do.	do.	Requirements and regulations same as for common school license in these 3 grades. Examinations in special subjects only, or in lieu of ex-

Music, art, domestic science, agriculture, physical culture.	Kindergarten licenses. 12 months. 24 months. 36 months.	County common school certificate. 12 months. 24 months. 36 months.	Primary certificate. 12 months. 24 months. 36 months.	In the county.	Kindergarten Elementary grades.	12 months. 24 months. 36 months.	do.	do.	do.	State superintendent of public instruction. County superintendent.	amination applicant may offer professional training in approved school of special subjects as follows: One year, Class A qualifications; 2 years, Class B qualifications; graduation from 3-year course, Class C qualifications. Registration and regulations as for other licenses. Examination in kindergarten theory and practice, and English.
Kindergarten licenses. 12 months. 24 months. 36 months.	do.	do.	do.	do.	do.	12 months. 24 months. 36 months.	do.	do.	do.	do.	Same as for State licenses of like grades and duration.
County common school certificate. 12 months. 24 months. 36 months.	County superintendent.	do.	do.	do.	do.	12 months. 24 months. 36 months.	do.	do.	do.	do.	Same as for State licenses of like grades and duration.
Primary certificate. 12 months. 24 months. 36 months.	do.	do.	do.	do.	do.	12 months. 24 months. 36 months.	do.	do.	do.	do.	Same as for State licenses of like grades and duration.

NOTE.—(1) Temporary permits to teach may be issued by the county superintendent at his discretion to applicants who meet the minimum professional training requirements affixed by law and who have not failed in any regular examination during the current year.

(2) A high school equivalency examination is given by the State board of education. Satisfactory examination in high school subjects may be accepted in lieu of high school graduation as qualification for entrance to normal training courses.

*Teachers' qualifications.*—The qualifications required for teaching for the different classes shall be as follows: (a) A teacher without experience: Shall be a graduate of a high school or its equivalent. Shall have had not less than one term of 12 weeks' work in a school maintaining a professional course for the training of teachers. Provided, that completion of one year or more in a recognized college shall be accepted in lieu of 12 weeks' work in a school maintaining a professional course for the training of teachers. Shall not have less than a 12 months' license.

(b) A teacher with 1 school year's experience: Shall be a graduate of a high school or its equivalent. Shall have not less than two terms of 24 weeks' work in a school maintaining a professional course for the training of teachers or the equivalent of such work. Provided, that the 1 year of college work optional for a teacher without experience shall be accepted as one of the required two terms of work in the class. Shall have a 2 years' license. Shall have a success grade.

(c) A teacher with 3 or more years' successful experience: Shall be a graduate of a high school or its equivalent. Shall have a 3 years', 5 years', 8 years', or a life license. Shall be a graduate course for the training of teachers or its equivalent. Shall have a 3 years', 5 years', 8 years', or a life license. Shall have a success grade.

(d) A teacher with 5 or more years' successful experience: Shall be a graduate of a high school or its equivalent. Shall be a graduate from a school maintaining a professional course for the training of teachers or its equivalent. Shall have a 3 years', 5 years', 8 years', or a life license. Shall have a 3 years', 5 years', 8 years', or a life license. Shall have a success grade. Provided, that for teachers already in the service prior to August, 1908, successful experience in teaching shall be accepted as an equivalent for high school and professional training, as required by all the above classifications.

## State laws and regulations concerning teachers' certificates—Continued.

## IOWA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
First-grade State certificate upon examination.	State board of examiners.	In State..	All schools....	5 years .....	Renewable for life after 5 years' successful teaching, 3 of which shall have been during the life of said certificate.	2 years .....	State board of examiners.	State board of examiners.	Examination in the following subjects: Reading, arithmetic, geography, English grammar, United States history, music, physiology, civics, algebra, physics, economics, bookkeeping, drawing, botany, English composition, elementary psychology, school law, history of education, school management, rhetoric literature, both English and American, general history, geometry, advanced psychology, school supervision.
Second-grade State certificate upon examination.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	Examination in subjects as for first-grade certificate, except rhetoric, literature, general history, geometry, advanced psychology, school supervision.
Primary State certificates.	.....do.....	.....do.....	1st, 2d and 3d grades.	.....do.....	.....do.....	2 years in 1st, 2d and 3d grades.	.....do.....	.....do.....	Examination in the following subjects: Psychology, history of education, plant study, primary methods, music, physical training, drawing, school law, school management. In addition applicant must present a theme on one of these subjects assigned by the State board, and must be the holder of a second-grade uniform county certificate, or a certificate of higher grade.



First-grade State certificate with-out examination.	do.....	do.....	All schools.....	do.....	do.....	No experience or 2 years.		<p>Issued to (a) graduates of the State university, the State teachers' college, the State college of agriculture and mechanic arts and other accredited Iowa colleges whose records include 6 semester hours in psychology and 14 in education; (b) graduates of approved colleges of other States with the same training in psychology and education who have taught successfully for two years; (c) holders of certificates of other States based upon graduation from approved colleges with psychology and education as in (a) and (b) and teaching experience as in (b). (d) Teachers of 15 years' experience and educational training satisfactory to the educational board of examiners.</p>
Second-grade State certificate with-out examination.	do.....	do.....	do.....	do.....	do.....	do.....		<p>Issued to (a) graduates of 2-year courses above secondary grade at the State teachers' college; (b) graduates of approved 2-year normal courses in Iowa colleges which do not have approved training schools, when they have taught successfully for 2 years subsequent to graduation; (c) graduates of normal schools of other States which meet the Iowa normal school standards who have taught successfully for 2 years; (d) holders of certificates of other States, based upon graduation from approved normal schools, who have taught successfully for 2 years.</p>

## State laws and regulations concerning teachers' certificates—Continued.

## IOWA—(Continued.)

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Preliminary third-grade State certificate.	State board of examiners.	In State...	All schools....	5 years	May not be renewed.	No experience or 2 years.			Issued to (a) graduates of accredited Iowa colleges whose record does not include psychology and education as required for the first grade State certificate; (b) to graduates of approved colleges of other States without psychology and education; provided they have taught successfully for 2 years; (c) holders of State certificates of other States issued upon graduation from approved colleges, without teaching experience, of psychology and education; (d) graduates of approved 2-year normal courses in Iowa colleges; (e) holders of certificates of other States issued upon graduation from approved normal schools who have had less than 2 years' teaching experience.
First-grade uniform county certificate.	do.....do.....	do.....do.....	do.....do.....	3 years	Renewed for 3-year period upon pedagogical reading and professional spirit. Certificates having an average of 85 with no subject below 80 are renewed for life after 5 years' successful teaching.	36 weeks	State board of examiners.	State board of examiners.	Examination in the following subjects: Orthography, reading, writing, arithmetic, geography, grammar, history of the United States, didactics, elementary civics, elementary algebra, elementary economics, elementary physics, elements of vocal music, physiology and hygiene, elementary agriculture and domestic science or manual training with minimum grade and average of 75 and 85.

Second-grade uniform county certificate.	do.....	do.....	do.....	2 years.....	do.....	May be renewed once.	No experience.	do.....	do.....	do.....	Examination in pedagogy and other subjects as for first grade uniform county certificate; civics, economics, algebra, and physics, with minimum grade and average of 70 and 75. Twelve weeks normal training is required before or after admission to the examination.
Third-grade uniform county certificate.	do.....	do.....	do.....	1 year.....	do.....	Renewable under same conditions as first grade uniform county certificate.	do.....	do.....	do.....	do.....	Same as for second grade uniform county certificate with minimum grade and average of 60 and 65 on examination.
Special uniform county certificate: Agriculture, domestic science, manual training, drawing, kindergarten, physical education, history and political science, English, French, German, Latin, music, natural and physical sciences, mathematics, commercial subjects, penmanship.	do.....	do.....	Subjects in which examination is taken.	3 years.....	do.....	Renewable under same conditions as first grade uniform county certificate.	do.....	do.....	do.....	do.....	Examination in special subject or group of subjects with per cents required for the issue of first-grade certificate.
High school normal training certificate.	State superintendent.	do.....	All schools.....	2 years.....	do.....	Renewable for 3 years on same conditions as apply to list grade uniform county certificate.	No experience except practice teaching.	do.....	do.....	do.....	Applicant must have finished the prescribed 4-year course in normal training high schools.



Second-grade uniform county certificate.	.....do.....	.....do.....	2 years	.....do.....	.....do.....	No experience.	.....do.....	.....do.....	.....do.....	Examination in pedagogy and other subjects as for first-grade uniform county certificate except civics, economics, algebra, and physics, with minimum grade and average of 70 and 75. Twelve weeks' normal training is required before or after admission to the examination.
Third-grade uniform county certificate.	.....do.....	.....do.....	1 year.	.....do.....	.....do.....	May be renewed once.	.....do.....	.....do.....	.....do.....	Same as for second-grade uniform county certificate with minimum grade and average of 60 and 65 on examination.
Special uniform county certificate: Agriculture, domestic science, manual training, kindergarten, physical education, history and political science, English, French, German, Latin, music, natural and physical sciences, mathematics, commercial subjects, penmanship.	.....do.....	.....do.....	3 years	Subjects in which examination is taken.	.....do.....	Renewable under same conditions as first-grade uniform county certificate.	.....do.....	.....do.....	.....do.....	Examination in special subject or group of subjects with per cents required for the issue of first-grade certificate.
High school normal training certificate.	State superintendent.	.....do.....	2 years	All schools.	.....do.....	Renewable for 3 years on same conditions as apply to first-grade uniform county certificate.	No experience except practice teaching.	.....do.....	.....do.....	Applicant must have finished the prescribed 4-year course in normal training high schools.

*State laws and regulations concerning teachers' certificates—Continued.***KANSAS.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Life diploma.....	State board of education.	In State...	All schools....	Life.....	.....	5 years, 3 of which shall be in Kansas.	.....	.....	Issued to teachers of eminent ability, who possess the qualifications for the 3-year certificate renewable for life.
State normal school life certificate.	State normal school.	...do.....	Elementary schools and junior and 2-year high schools.	...do.....	.....	.....	.....	.....	Issued on completion of 2-year course at State normal school in addition to 4-year high school course.
State normal life diploma.	...do.....	...do.....	Elementary and high schools.	...do.....	.....	.....	.....	.....	Issued to applicants holding bachelor of science degree in education from State normal school on completion of 4-year course.
State normal school special certificate: Manual training, domestic science, agriculture, commercial branches, drawing, music, and occupational subjects.	...do.....	...do.....	Special subjects only.	...do.....	.....	.....	.....	.....	Issued on completion of course prescribed by the State normal schools in the subject for which issued.
Three-year certificate, renewable for life.	State board of education.	...do.....	Elementary and high schools.	3 years.....	Renewable for life in compliance with the regulations of the State board.	2 years after 3-year certificate was issued and compliance with requirements of State board. Certificate lapses if applicant discontinues teaching for 3 consecutive years.	State board of education.	State board of education.	(a) Examination in branches prescribed by the State board, or (b) completion of 4-year high school course and 4-year course in normal school, college, or university accredited for the purpose by the State board.

Three-year certificate.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
			Elementary schools or high schools under regulations prescribed by the State board.		

(a) Written examination in branches prescribed by the State board, or (b) graduation from 4-year high school and in addition completion of 2-year course in accredited normal school, college, or university.

Issued on completion of 4-year high school course and 2-year course in accredited normal school, college, or university, with 24 hours' credit in special branch for which issued.

Renewable for 3-year periods or may be made a permanent certificate after 3 years' experience in teaching or supervising in the public schools of the State of Kansas provided that attendance at any accredited normal school, college or university for one year during the 3-year period may be accepted as equivalent to experience in teaching or supervising.

Renewable for 2-year periods at the discretion of the State board.

Elementary schools or high schools under regulations prescribed by the State board.

Special subjects only.

Three-year certificate.

Special certificate: Kindergarten, manual training, domestic sciences and art, agriculture, commercial branches, physical training, music, drawing, and such other specialized subjects as may be designated by the State board.

## State laws and regulations concerning teachers' certificates—Continued.

## KANSAS—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Three-year elementary certificate.	State board of education.	In State...	Valid in an elementary school.	3 years.....	May be renewed for 3-year periods or made a permanent certificate valid for teaching in elementary schools after 3 years' successful and continuous experience in teaching or supervising, provided, that attendance at any accredited normal school, college or university for 1 year for which full credit is given may be accepted as equivalent to such experience.	None or 4 years	.....	.....	(a) Issued to holders of first-grade county certificates, and certificates issued by cities of the first and second classes who have completed a 4-year course in an approved high school, and in addition a 2-year course in a normal school, college or university, accredited by the State board. (b) In lieu of course in normal school, university, or college, applicant must be a graduate of a 4-year high school course and have 4 years' successful experience.
State normal school 3-year certificate.	State normal school.	...do. ....	Elementary schools.	...do. ....	Not renewable	.....	.....	.....	Issued on completion of standard 4-year high school course approved by the State normal school and completion of freshman course of the State normal school.



First-grade county certificate.	County examining board of high county superintendent is chairman.	County. Indorsed in other counties on application.	do.	do.	Renewable on attendance at teachers' institute or 6 weeks at an approved professional school, and such other requirements as the county superintendent may prescribe.	State board of education.	County examining board.	Applicant must make an average of 90 per cent with no subject below 75 in all branches required for second-grade certificate and pass additional examination in English, history, and physics, and must have completed a 2-year course in an approved high school or equivalent preparation. Applicant must be at least 20 years of age.
Normal training teachers' certificate.	State board of education.	State.	do.	2 years.	Renewable for 2-year periods on conditions prescribed by State board.	7 months.	County examining board.	<p><b>Graduation from normal training course in high schools and academies approved for the purpose by the State board of education.</b></p> <p>(a) Applicant must make an average of 80 per cent with no branch below 60 in all branches required for third-grade certificate and in addition music, and must have completed at least 1-year course in an approved high school or equivalent preparation.</p> <p>(b) Issued to applicants without experience who have completed a 4-year course in an approved high school.</p> <p>Applicant must make an average of at least 75 per cent with no branch below 60 in the following subjects: Spelling, reading, writing, English grammar, composition, geography, arithmetic, United States history, Kansas history, civil government, physiology, hygiene, elements of agriculture, elements of general science, English classics, principles and methods of teaching. Not more than two such certificates will be granted to any one person.</p>
Second-grade county certificate.	County examining board.	County. May be indorsed in other counties.	do.	do.	Not renewable	7 months.	County examining board.	
Third-grade county certificate.	do.	County.	do.	1 year.		do.	do.	

*State laws and regulations concerning teachers' certificates—Continued.*  
**KANSAS—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State normal school 1-year certificate.	State normal school.	State.....	Elementary Schools.	3 years.....	Not renewable				Issued on completion of secondary course adopted by the State normal school.
Temporary certificate.	State board of education.	do.....	In such schools and departments as are specified on the certificate.	do.....	do.....				Issued in emergency only under regulations of the State board. Not more than one shall be issued to any one person.

**NOTE.**—The county superintendent may issue temporary certificates to persons under 17 years of age, who have not failed in the preceding examination, good until the next regular examination.  
 No teacher shall teach in any high school who does not hold a State certificate as a high school teacher, granted by the State board of education or State normal schools.

**KENTUCKY.**

State teacher's diploma.	State board of examiners.	In State....	Any school....	Life.....		2 years.....	State board of examiners.	State board of examiners.	Examination at the capital on spelling, reading, writing, arithmetic, grammar, civil government, United States and Kentucky history, theory and practice of teaching, science and art of teaching, psychology, English literature, algebra, hygiene, geometry, physics, elementary Latin. Applicant must attain an average of 80 per cent, with no branch below 70, and be at least 24 years of age.
Life certificate.....	State board of education.	do.....	do.....	do.....		20 years.....			Holder of certificate of the first class; issued at the discretion of the State board.
State certificate....	State board of examiners.	do.....	do.....	8 years.....	Renewable for 8 years on recommendation of the county board of education.	2 years.....	do.....	do.....	Recommendation of the county board and written examination in subjects embraced in common-school course of study, and English literature, elementary algebra, higher arithmetic, and

Normal certificates: (1) Elementary certificate.	Board of trustees of State university.	do.	Elementary schools.	1 year.	Not stated.	the county in which applicant teaches.	None.	None.	ence and art of teaching. Applicant must be at least 21 years of age. In some cases the county superintendent may give these examinations.
(2) Intermediate certificate.	do.	do.	Intermediate schools.	2 years.	do.	do.	do.	do.	Applicant must have completed 1 year's work in normal department of the State university or State normal schools. Application approved by State superintendent.
(3) Advanced certificate.	do.	do.	All schools.	5 years.	Extended for life after 3 years' experience.	do.	do.	do.	Applicant must have completed at least 2 years' work in one of the above institutions. State superintendent must approve.
County certificate of the first grade.	County superintendent of schools.	In county. May be validated in other counties in emergency for 1 year.	do.	4 years.	Renewable if holder has taught 4 consecutive years under first-class certificate.	do.	State board of examiners.	State board of examiners.	(a) Applicant must have completed at least 3 years' work in one of above institutions. Approval of State superintendent. (b) Graduation from department of education from University of Kentucky. Applicant must attain average of 80 per cent, with no branch below 80, in examination on all subjects in the common-school curriculum, and the science and art of teaching.
County certificate of the second grade.	do.	In county.	In schools of districts with fewer than 75 pupils.	2 years.	do.	do.	do.	do.	Applicant must pass examination as for first-grade certificate, with average of 75 per cent and no branch below 80. Applicant must be at least 18 years of age.
High school certificate.	(a) State board of examiners. (b) State board of education.	In State.	High schools.	At the discretion of State board.	State superintendent may validate same during term of years not stated.	do.	do.	do.	(a) Examination as rules and regulations of the State board prescribe. (b) Graduation from higher institution of learning approved by the State board.

NOTE.—Private institutions "not conducted for private gain" may issue normal certificates on same basis as State university or normal schools, provided applicant has completed at least equivalent of 10 years' work in public schools.

## State laws and regulations concerning teachers' certificates—Continued.

## LOUISIANA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Special high-school certificate.	State examining committee.	In State.	All high schools.	5 years.			State examining committee.	State examining committee.	Examinations in the special subjects for which certificate is requested, with an average of at least 80 per cent. Additional examinations in English grammar and composition, penmanship, spelling, theory and practice of teaching. Must have a general average of 80 per cent, with no branch below 40.
First-grade certificate.	.....do.....	.....do.....	Elementary schools.	.....do.....	Renewable for 5 years. <sup>1</sup>		.....do.....	.....do.....	(a) Applicant must pass examinations with general average of 80 per cent; no branch below 40 in the following subjects: Plane geometry, higher algebra, higher arithmetic, English grammar, English composition, history of the United States and the Constitution of Louisiana, physical geography, physiology and hygiene, spelling, penmanship, theory and practice of teaching. (b) Graduation from normal schools with courses of two years above a 4-year high-school course. (c) Graduation from college with course of 4 years above high school.
Second-grade certificate.	.....do.....	.....do.....	.....do.....	3 years.	No renewal. <sup>1</sup>		.....do.....	.....do.....	Applicant must pass examination with a general average of 80 per cent and no branch below 40 in the following subjects: Elementary algebra, arithmetic, English grammar and composition, history of the United States, geography, physiology and

hygiene, spelling, penmanship, theory and art of teaching.

Third-grade certificate.

<sup>1</sup> Renewable on recommendation of parish superintendent. After 1921, 3 credits required for attendance at institute or normal summer school in addition to recommendations. <sup>2</sup> Second and third grade certificates may be extended for a year through application of summer school credits.

**NOTE.**—Applicants receive 5 points credit to general average earned in examination for 6 weeks' course at summer normal school; 6 points for 8 weeks; 7 points for 9 weeks.

**MAINE.**

[State laws and regulations concerning teachers' certificates, Dec. 1, 1920.]

Elementary certificate, permanent.	State superintendent.	State.	In grades for which issued.	Life.	5 years.	State superintendent.	State superintendent.	Issued to holders of elementary probationary certificates or those who meet equivalent requirements and in addition to the necessary experience pursue some professional study during the life of the temporary certificate.
Permanent professional certificate, elementary.	do.	do.	do.	do.	do.			Issued to holders of professional elementary probationary certificates or those having equivalent qualifications.
Permanent secondary certificate.	do.	do.	do.	do.	do.			Issued to holders of probationary secondary certificates who have gained the required experience and have pursued professional study during the life of the temporary certificate.
Professional secondary certificate, permanent.	do.	do.	do.	do.	do.			Issued to holders of a probationary professional secondary certificate or others meeting the same requirements who have the required experience.
Professional elementary certificate, probationary.	do.	do.	do.	2 years	Renewable for 5 years on successful experience.			(a) Issued to any person who has satisfactorily completed a course in a Maine State normal school or in a teacher-training school which offers not less than 2 years of work subsequent to a standard secondary school course.

## State laws and regulations concerning teachers' certificates—Continued.

## MAINE—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Professional elementary certificate, probationary.									(b) Issued to holders of elementary certificates who qualify by written examination in the following subjects: History of education, psychology, school management, methods as applied to elementary school branches, school law of Maine. Graduation from any Maine college or other college of equal standing if applicant has completed a course in pedagogy approved by the State superintendent of schools before or after graduation or passes a satisfactory examination in the following subjects: History of education, school management, psychology, methods, school law of Maine. Issued to persons who have satisfactorily completed an approved course in subject for which certificate is desired. <sup>1</sup>
Professional secondary certificate, probationary.	State superintendent.	State	In grades for which issued.	Life	Renewable for 5 years on successful experience.				(a) Completion of a 4-year course in a Maine college or other institution of equal standing; or (b) evidence of not less than 3 years of successful teaching in approved secondary schools, after the completion of not less than 2
Special certificates: Kindergarten, music, drawing, manual training, household arts, domestic science, etc.	do.	do.	Special subject for which issued.	do.	do.				
Probationary secondary certificate.	do.	do.	In grades for which issued.	For 2, 3, or 5 years as indicated by experience of candidate.					

years in college or normal school; or (c) presentation of a valid State certificate from another State if minimum requirements for a Maine secondary certificate have been met; or (d) satisfactory written examination in any 5 of the following groups: English, mathematics, science, modern languages, ancient languages, civics, history.

Applicant must be at least 17 years of age and have finished a standard secondary school course or its equivalent. In addition, he must (1) furnish evidence of successful teaching experience of not less than 2 years, or (2) have completed a satisfactory normal or training school course subsequent to a standard secondary school course, or (3) hold a certificate issued in another State covering the requirements of the Maine elementary certificate, or (4) pass a satisfactory examination in the following subjects: Reading, orthography, penmanship, English grammar, composition, arithmetic, geography, United States history, civil government, physiology, nature study, Maine school law. Issued on examination by local superintendent. Applicant must meet same prerequisite as for elementary probationary certificate.

Elementary certificate, probationary.	.....do.....	do.....	do.....	Period specified.	Renewable after successful experience.	Note or 2 years.	State superintendent.	State superintendent.
Temporary permit.	Local superintendent.	Local only.	Elementary...	1 year.....	Nonrenewable.	.....	Local superintendent.	Local superintendent.

1. "Approved" course must be satisfactory to the State superintendent of public instruction.

## State laws and regulations concerning teachers' certificates—(Continued)

## MARYLAND.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by	Examined by	
Certificate in administration and supervision.	State superintendent of schools.	In State.	All schools.	3 years.	Renewable on evidence of successful experience and professional spirit.	2 years.			Graduation from a standard college or university or the equivalent in scholastic preparation, and 1 year of graduation work in education in a standard institution.
Certificate in elementary school supervision.	do.	do.	Elementary schools.	do.	do.	4 years' teaching experience in elementary schools.			(a) Graduation from 3-year course in a standard normal school after a 4-year high school education, or the equivalent in scholastic preparation, and 2 years' additional work at a standard college or university. (b) The latter one-half of the time is to be given to academic branches, and one-half to elementary methods and supervision, or the equivalent of such training; or (b) graduation from a 4-year college or university, course to include at least 1 year in education, including elementary methods.
Certificate in supervision of special subjects: Physical training, musical, fine arts, domestic art, and science, manual training, agriculture.	do.	do.	Special subjects only.	do.	do.	4 years' teaching experience, 2 of which shall be in the special subjects.			Completion of 4-year high school course or its equivalent, and in addition graduation from 4-year college course. The latter must be divided evenly between general subjects, and special subjects for which certificate is issued, with at least 300 hours in theory of education and the art of teaching and supervising.



High school principal's certificate.	do.	do.	do.	All high schools.	do.	do.	do.	2 years' teaching experience.			Graduation from a standard college or its equivalent, and one-third of which is given to advanced study relating to high school branches and two-thirds to education, including administration and supervision.
High school teacher's certificate.	do.	do.	do.	High schools and elementary schools with the consent of State superintendent.	do.	do.	do.	None.			Graduation from a standard college or university or equivalent preparation, course to include at least two high school branches continuously pursued throughout 2 years, and at least 200 recitation hours in education, including secondary education and practice teaching.
High school teacher's certificate in special branches.	do.	do.	do.	Special subjects.	do.	do.	do.				(a) Granted for music, manual or industrial training, domestic science and art, commercial branches, agriculture, on completion of 4 years' high school or equivalent preparation, and at least 2 additional years of college grade, one-third of which is devoted to general academic subjects, and two-thirds to the special subjects for which the certificate is issued, including a minimum of 200 recitation hours in education. (b) After September, 1919, this certificate may be granted on examination showing preparation and training equivalent to the above.
Elementary school principal's certificate.	do.	do.	do.	Elementary schools.	do.	do.	do.	3 years in elementary schools.	State board of education.	State board of education.	(a) Graduation from 4-year high school and in addition from 2-year normal school or equivalent preparation, with not less than one full half-year's work at college or university including supervision and administrative work in education. (b) Examination showing preparation equivalent to the above.

## State laws and regulations concerning teachers' certificates—Continued.

## MARYLAND—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Elementary school teacher's certificate of the first grade.	State superintendent of schools.	In State	Elementary schools.	3 years	Renewable on evidence of successful teaching and at least 6 weeks additional academic and professional preparation. Renewable for a period of 3 years on evidence of successful teaching and 6 weeks of professional preparation at a standard institution thereafter indefinitely on same conditions.	None	State board of education.	State board of education.	Graduation from 4-year high school or its equivalent, and from 2-year normal school or its equivalent, or issued on examination to persons showing equivalent preparation and training.
Elementary school teacher's certificate of the second grade.	do.	do.	do.	2 years	Renewable for 2 years on evidence of successful teaching and at least 6 weeks additional academic and professional preparation. Renewable for a period of 3 years on evidence of successful teaching and 6 weeks of professional preparation at a standard institution thereafter indefinitely on same conditions.	do.	do.	do.	Graduation from 4-year high school or equivalent preparation, and examination in reading, spelling, penmanship, arithmetic, geography, oral and written English, history of the United States and Maryland, community civics, hygiene and sanitation, music, drawing, hand work, theory and practice of teaching, and agriculture. Applicant must also have completed 6 weeks' preparation in a standard institution, and be 18 years of age or over. Certificate is issued once only to any person by examination.

	.....do.....	.....do.....	.....do.....	.....do.....	Renewable for	.....do.....	.....do.....	.....do.....	.....do.....	Issued in case of emergency only.
Elementary school teacher's certificate of the third grade.					1 year on evidence of successful teaching experience and completion of 6 weeks' additional professional preparation. Second renewal for 3-year period on successful teaching and 6 weeks' additional preparation, and so on indefinitely.					No provisional certificates can be issued if there are available applicants with third-grade certificates; no third-grade certificates can be recognized if it is possible to employ teachers with second-grade certificates and no second-grade certificates recognized when it is possible to employ teachers with first-grade certificates.
Provisional certificate.					Not renewable unless renewed by State superintendent.					

*State laws and regulations concerning teachers' certificates—Continued.*  
**MASSACHUSETTS.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Permanent life certificate.	State board of education.	In State...	State-aided high schools.	For life.....		2 years in Massachusetts.			Applicant must hold preliminary certificate. Must have two continuous years of successful teaching in secondary schools in Massachusetts, and submit a thesis satisfactory to the board on some phase of secondary education.
Superintendent's permanent life certificate.	do.....	do.....	To supervise schools in union.	do.....		3 continuous years subsequent to securing preliminary certificate.			Applicant must hold superintendent's preliminary certificate, granted by the State board; must have completed the equivalent of a semester's course in educational theory, in college, university or normal school; and must present a thesis on some topic satisfactory to the State board of education concerning school supervision, school organization or administration.
Superintendent's preliminary certificate.	do.....	do.....	As superintendent of schools in the union.	3 years.....		(a) 2 years' teaching. (b) 3 years' supervision.	State board of education.	State board of education.	(a) Applicant must have completed a college or normal course or its equivalent, and must pass examination in school law of Massachusetts, school organization, administration and supervision; aims, courses and methods in elementary schools, with special reference to rural schools; aims, courses and methods in high schools; history of education and educational sociology; or (b) applicant must have a normal diploma or B. A. degree, or equivalent education, and must have completed course in approved college or university, equivalent to at least 4-year-hours'

work including school administration and supervision and educational theory and practice. Candidate must also submit thesis on some subject or phase of the work of superintendent of schools.

I. (a) Applicant must possess A. B. degree from a college maintaining standards at least equal to those of colleges in Massachusetts empowered to grant such a degree; and preparation in at least two subjects of not less than 3-year-hours of work each and in at least two additional subjects of 1½-year-hours each.

(b) (1) At least 3-year-hours of work in two of the following subjects: Principles of education, history of education, educational psychology, school administration, problems of secondary education, with instruction in methods of teaching particular subjects, school hygiene, practice teaching under supervision; or (2) diploma from an approved normal school; or (3) 2 years' teaching experience, aggregating at least 70 weeks, in secondary schools, the quality of such teaching to be established to the satisfaction of the board; or (4) 30 hours in a professional subject in the summer school of an approved college, university, or other institution offering equivalent courses.

II. Three years' successful experience as a teacher in a secondary school prior to July 1, 1912, and presentation by examination or otherwise of evidence satisfactory to the board of education of fitness to teach in a high school.

Renewable at  
the discretion of the  
State board.

State-aided,  
2 years.....  
high schools.

Preliminary certificate.

*State laws and regulations concerning teachers' certificates—Continued.*  
**MASSACHUSETTS—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Special certificate in any of the following: Agriculture, drawing, commercial subjects, manual arts, household arts, music, physical training.	State board of education.	In State....	State-aided high schools.	2 years.....	Renewable at the discretion of the State board.	.....	.....	.....	Applicant's qualifications to teach one or more of the following subjects must be satisfactory to the board of education: Agriculture, commercial subjects, drawing, household arts, manual arts, music, and physical training. Graduates of the 3-year course in household arts at the Framingham State Normal School are granted special certificates in general science, biology, and chemistry in addition to household arts, upon recommendation of the principal of that normal school. (a) At the discretion of the local committee. The school committee shall ascertain by personal examination the applicant's capacity for teaching, and for the government of schools.
Local certificates.	Local school committee.	In the district which is issued.	In schools or subjects for which issued.	At the discretion of the local committee.	At the discretion of the local committee.	.....	Local school committee.	Local school committee.	

**MICHIGAN.**

Life certificate upon examination.	State superintendent.	State.....	All schools....	Life.....	2 years.....	State board of education.	State board of education.	Applicant must pass satisfactory examination in the following: Orthography, reading, penmanship, arithmetic, algebra, geometry, grammar, geography, United States history, general history, civil government, theory and art of teaching, physics, physiology and hygiene, botany, rhetoric, general literature, and any 3 of the following: Latin, French, geology, zoology, chemistry.

Life certificate upon indorsement.	State board of education.	...do...	...do...	...do...	...do...	...do...	...do...	...do...	...do...	Holders of life diplomas or certificates from other States which are granted on examination of credentials equivalent to those required for life certificate in Michigan and which qualify the holder to teach any subject in any public school in the State in which granted. Applicant must have received a bachelor's, master's, or doctor's degree as provided in the requirements for college limited certificate. Applicant must have completed one of the advanced courses of study in a Michigan State normal school which requires not less than 4 years for its completion and not less than 2 years of work in advance of the high school. Applicants must have finished a course of at least 2 years in subjects for which certificate is issued in any one of the following institutions: University of Michigan, State normal school, a college incorporated under the general laws of the State, other institutions whose course of study is acceptable to the superintendent of public instruction. Applicant must have finished a course of at least 2 years in music under a private instructor and must have passed an examination satisfactory to the music director of a State normal school in this State, or must have finished a course of at least 2 years in music in any one of the following institutions: The University of Michigan, a State normal school of this State, a college incorporated under the general laws of this State, an institution whose course of study is acceptable to the superintendent of public instruction of this State.
College life certificate.	...do...	...do...	...do...	...do...	...do...	3 years.	...do...	...do...	...do...	
Normal life certificate.	...do...	...do...	...do...	...do...	...do...	None.	...do...	...do...	...do...	
Special certificate: Domestic science and art, manual training, commercial training, physical training, drawing.	State superintendent.	...do...	...do...	...do...	All schools in subjects named.	...do...	...do...	...do...	...do...	
Music certificate.	...do...	...do...	...do...	...do...	All schools to teach music.	...do...	...do...	...do...	...do...	

## State laws and regulations concerning teachers' certificates—Continued.

## MICHIGAN—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Kindergarten and primary certificate.	State superintendent.	State .....	Kindergarten and primary grades.	Life .....	.....	.....	.....	.....	Applicant must be a graduate of a kindergarten training school whose course covers at least 2 years' work and is approved by the State superintendent of public instruction and must have at least one of the following qualifications: (1) A teacher's certificate in force; (2) a diploma from a reputable college; (3) a diploma from a high school having 4-year course.
University of Michigan certificate.	Regents of University of Michigan.	...do.....	All schools.....	.....do.....	.....	.....	.....	.....	Applicant must have a bachelor's, master's, or doctor's degree from the University of Michigan and teachers' diploma for work done in the science and art of teaching in the university.
College limited certificate.	State board of education.	...do.....	.....do.....	4 years.....	Not renewable.	.....	.....	.....	Applicant must hold a bachelor's, master's, or doctor's degree from a standard college or university and must have completed a course in science and art of teaching of at least 1 college year of 5½ hours per week, including observation and practice work.
First-grade county certificate.	County board of examiners.	County 1.....	.....do.....	.....do.....	Renewable indefinitely if holder has average standing of 85 per cent in two previous examinations and continues teaching.	1 year.....	State superintendent of public instruction.	State superintendent or county board of examiners.	Applicant must pass satisfactory examination in orthography, arithmetic, theory and art, geography, civil government, United States history, grammar, physiology, reading, penmanship, agriculture, school law, State course of study, geometry, algebra, botany, general history, and physics.



Graded certificate.	State board of education.	3 years.	Not renewable.	County board of examiners.	State superintendent of public instruction.	7 months.	3 months in primary departments.	Applicant must have completed a course of study requiring 42 weeks of work in a Michigan State normal school, all of which is in advance of the high school.
Rural school certificate.	State.	First 9 grades.	Renewable for a period of 3 years.	do.	do.	do.	do.	Applicant must have completed 1 year of work in a county normal training class of the State.
County normal certificate.	County normal board.	All schools in which issued.	Renewable for successful teaching and professional interest.	do.	do.	do.	do.	do.
Second-grade certificate.	County board of examiners.	All schools.	Renewable same as county first grade.	do.	do.	do.	do.	Applicant must pass a satisfactory examination in orthography, arithmetic, theory and art of teaching, geography, government, United States history, grammar, physiology, reading, penmanship, agriculture, State law, State course of study, and any 2 of the following: Algebra, botany, general history, physics.
Third-grade certificate. Class A.	do.	First 4 grades.	do.	do.	do.	do.	do.	Applicant must pass satisfactory examination in orthography, arithmetic, theory and art, geography and government, United States history, grammar, physiology, reading, penmanship, agriculture, school law and State course of study.
Third-grade certificate. Class B.	do.	do.	May be renewed once under above conditions. Not more than 3 certificates of this grade can be granted to the same person.	do.	do.	do.	do.	Same as above.

<sup>1</sup>All county first-grade examination papers favorably passed upon by the county board of examiners, together with the certificates, shall be forwarded to the superintendent of public instruction within 10 days for his inspection and indorsement. The indorsed first-grade certificate is valid in all schools in any county of the State, provided a copy of same is recorded in the office of the county commissioner of the county.

## State laws and regulations concerning teachers' certificates—Continued.

## MICHIGAN—Continued.

Name of certificate.	Issued by.	Valid in—		Duration.	Perpetuance.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by.	Examined by.	
Special certificate.	County commissioner of schools.	Specified district of the county in which issued.		Good until next examination.			County commissioner of schools.	County commissioner of schools.	Applicant must pass satisfactory examination in same subjects required for a third-grade certificate, Class B 3.

NOTE.—Applicant for certificate must be a citizen of the United States or have declared his intention to become such. All certificates require that applicant must be 18 years of age or over. No certificate can be granted by the county board of school examiners to any person who has not had at least 6 weeks of professional training in a state normal school, county normal training class or other normal training school approved by the State superintendent of public instruction.

## MINNESOTA.

Life certificate for normal school graduates.	Normal school board.	In State.	Elementary.	Life.		2 years teaching on normal school diploma in State.	State superintendent.		Graduation from advanced course of a State normal school and successful experience.
First-grade certificate.	State superintendent.	do.	Rural elementary.	5 years.	Renewable by State superintendent on completion of prescribed amount of professional work.	8 months.	State superintendent.		(a) Examination with minimum grade of 75 per cent in same subjects as for second-grade certificate and additional examination in algebra, geometry, physical geography, and physics, and at least one year of professional training in approved institution. (b) Graduation from high school training department accepted in lieu of above examination.
Professional certificate of first-grade on examination.	do.	do.	Any.	Valid for limited periods 2 or 5 years.	Renewable on evidence of successful teaching. Matrices into a life certificate.	One year's teaching experience in State.	do.	do.	Applicant must hold a first-grade certificate and in addition pass examination in selected branches from each group of the following: (1) Education science, including



State laws and regulations concerning teachers' certificates (Continued.)  
MINNESOTA—(Continued.)

Name of certificate.	Issued by.	Valid in		Duration	Permittee	Experience required.	Questions		Scholarship requirement.
		Territory.	Schools.				Prepared by.	Examined by.	
High-school training department certificate, First class.	State superintendent.	In State.	Rural.	2 years.	Renewable on recommendation of county superintendent, but after 12 months expires in connection and completion of prescribed professional work.	.....	.....	.....	Completion of 4 years' high school work (in credits) and above in all the subjects of the training department of high school. Applicant must be 18 years of age.
Professional permits.	do.	do.	Any.	1 year.	Not renewable.	.....	State superintendent.	State superintendent.	Granted to applicants who have not more than three of the teaching certificates required for a professional certificate. Holder of diploma from accredited school preparing teachers for special subjects.
Special certificate: Music, drawing, manual arts, home economics, agriculture, kindergarten.	do.	do.	Any, unless restricted to designated place.	do.	Same as for professional certificate.	.....	.....	.....	Applicant must be 17 years of age and pass examination as for second class certificate.
Limited certificate.	do.	do.	Rural elementary.	do.	May be exchanged for 2d class after 6 months' experience and compliance with State superintendent's regulations.	.....	.....	.....	.....

NOTE.—Credits earned in normal and other approved schools may be substituted for examination under certain conditions. Thirty-six weeks' professional training equivalent to that given in State institutions of Minnesota required for teachers' certificates except limited and second-grade certificate.

## MISSISSIPPI.

Teacher's professional license.	State board of examiners.	In State.		For life.	All schools.	For life.	All schools.	For life.	All schools.	For life.	All schools.
		do.	do.		do.	do.	do.		do.	do.	do.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

(a) Issued to graduates of the University of Mississippi, the agricultural and mechanical

college, the industrial institute and college, and other institutions maintaining an approved standard 4-year college course, who have had 9 hours of college work in education. (b) Issued to graduates of the Mississippi State Normal College. (c) Issued to teachers of recognized ability who pass examination in algebra, geometry, physics, rhetoric, English literature, the elements of botany and chemistry, the science of teaching, civil government and Latin through Caesar and Virgil.

(a) Issued to persons holding certificates, licenses, or diplomas from any State which requires qualifications equivalent to those required in Mississippi. (b) Examination in spelling, reading, practical and mental arithmetic, geography, English, grammar and composition. United States and Mississippi history, agriculture, civil government, physiology and hygiene, theory and practice of teaching, elementary algebra, advanced English, general science, and modern history. (c) Issued for 3 years to graduates of approved colleges who have had 9 hours in education. Issued for 2 years to those who have completed 2 years in approved college and who have had 6 hours in education. Issued for 1 year to graduates of agricultural high schools who have had 2 hours in education and who attend summer school for 6 weeks immediately following graduation. (d) Completion of certificate course in State normal school (2 years above common-school course).

**State board of  
examiners.**

**State board of  
examiners.**

**Renewable on attendance at approved summer school. May be made permanent after 5 years' continuous experience.**

**1 year...  
2 years...  
3 years...  
5 years...**

do.

.do.

do.

**First-grade license.**

## State laws and regulations concerning teachers' certificates—Continued.

## MISSISSIPPI—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State license of the second grade.	State board of examiners.	In State ..	All schools ..	1 year..... 2 years..... 3 years.....	Renewable 1 year at a time for not more than 4 con- secutive years, on at- tendance at approved 6 weeks' sum- mer school.	.....	State board of examiners.	State board of examiners.	(a) Examination as for first- grade license. Duration de- pendent on grades.
State license of the third grade.	.....do.....	.....do.....	.....do.....	1 year.....	Not renewable	.....	.....do.....	.....do.....	Examination in same subjects as for first and second grade license.
Second-grade county certificate.	County board of examiners.	In county ..	.....do.....	.....do.....	.....do.....	.....	.....do.....	County board of examiners.	Examination same as for first- grade certificate, omitting modern history, advanced English, elementary algebra, theory and practice of teach- ing. Applicant must have average of 75 per cent with no branch below 40.
Third-grade county certificate.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....	.....do.....	.....do.....	Examination in subjects as for second-grade certificates, with an average of 60 per cent and no branch below 40.
First-grade county certificate.	.....do.....	.....do.....	.....do.....	(a) 1 year..... (b) 2 years..... (c) 3 years.....	Renewable on attendance at approved summer school.	.....	.....do.....	.....do.....	Examination in spelling, read- ing, practical and mental arithmetic, composition, United States history, his- tory of Mississippi, agricul- ture, civil government, physi- ology and hygiene, theory and practice of teaching ele- mentary algebra, advanced English, modern history. Applicant must receive (a) average of 75, (b) average of 85, (c) average of 90.

Agricultural high-school certificate.	.....do.....	.....do.....	All schools for teaching agriculture.	.....do.....	Renewable on compliance with regulation of State board of examiners.	.....do.....	.....do.....	.....do.....	Applicant must pass examination in spelling, reading, arithmetic, geography, English grammar, composition, United States history, literature, history of Mississippi, elements of agriculture, civil government, physiology and hygiene, theory and practice of teaching, elementary algebra, advanced English, general science, modern history, and examination in subjects he is to teach. Applicant must receive (a) average of 75, (b) average of 85, (c) average of 90. Applicant must comply with regulations prescribed by State board of examiners.
Special subjects certificate: Nursing, manual training, domestic science, and other special subjects.	.....do.....	.....do.....	Special subjects only.	Discretion of board.					

## State laws and regulations concerning teachers' certificates—Continued.

## MISSOURI.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Lifecertificate.....	State superintendent.	State.....	All schools.....	Life.....		(a) 40 months as teacher or superintendent. (b) 16 months' teaching.	State superintendent.	State superintendent.	(a) Same as requirements for 5-year State certificate plus examination in educational psychology and history of education and one of the following requirements: (1) Special in history. All of Group I, history of English language and history of English and American literature. (2) Special in language: English history, rhetoric, history of English language, history of English and American literature, and either 4 years of Latin or 4 years of German. (3) Special in science. All of Group III, advanced physics, chemistry, advanced biology. (4) Special in mathematics: Physics, college algebra, plane geometry, trigonometry, solid geometry, analytical geometry, and calculus. (5) Special professional: Six of the following not taken for 5-year certificate: Primary teaching and kindergarten, elementary course of study (including organization of subject matter and methods of teaching), Missouri school system and laws (including the history of education in Missouri), school supervision and administration, the current reading circle books, elementary psychology, high-school teaching (including course of study, methods and prob-



lems), theory and methods of teaching, manual training, music, drawing, domestic economy, physical culture, and expression.

(b) Graduation from standard colleges of the State with 18 hours' work in education.

(a) The applicant must hold a first-grade county certificate, and furnish evidence of having completed 4 years of high school work or the equivalent. The additional requirements are six subjects, to be selected by the applicant from the following groups of subjects, one from each of the first four and two from Group V:

Group I. Ancient history, medieval and modern history, English history and government, American history and government, economics, sociology, Missouri history and government.

Group II. Rhetoric, history of English and American literature, history of English language, Latin (Caesar and Cicero), German (2 years).

Group III. Botany, zoology, physical geography, advanced agriculture.

Group IV. Physics, chemistry, college algebra, plane geometry, solid geometry, and trigonometry.

Group V. Primary teaching and kindergarten, elementary course of study (including organization of subject matter and methods of teaching), Missouri school system and laws (including the history of education in Missouri), supervision and administration, the current reading circle books, elementary psychology, theory and methods of teaching.

Five-year State certificate.

do.

do.

do.

5 years.

(b) Elementary schools.  
(c) Elementary and high schools.  
(d) Elementary and high schools.

Reissued on attendance at summer schools and recommendation from local superintendent or examination in one additional group subject selected by applicant and recommendation as above.  
Exchanged for life certificate after total experience of 40 months, 9 months of which is in Missouri, if holder has secured additional training prescribed by board.

(a) 12 months.  
(d) 9 months.

do.

do.

## State laws and regulations concerning teachers' certificates—Continued.

## MISSOURI—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Five-year State certificate.									(b) Graduation from State normal schools whose course is 2 years above high-school graduation. (c) Normal-school graduates who have completed 4 years of college work. (d) Graduation from standard college. (e) Graduation from colleges with training in special subjects. (f) Graduation from schools of high rank which prepare special teachers, provided course includes 12 hours in education. (Applicants for 5-year certificate must have minimum of 1 year of college work. Applicants for life certificates must have minimum of 2 years of college work.)
Five-year State special certificate: music, household arts, book-keeping and commercial branches, drawing, manual training, special primary, agriculture.	State superintendent.	State.....	Special subject for which issued.	5 years.	Reissued on attendance at summer schools and recommendation from local superintendent or examination in one additional group subject selected by applicant and recommendation as above.				
Junior college certificate.	.....do.....	.....do.....	All schools.....	3 years.	Not renewable.				Graduation from junior college with 12 hours in education.
First-grade county certificate.	County superintendent.	Any county in State.	.....do.....	.....do.....	Renewable indefinitely for compliance with prescribed conditions.	8 months.....	State superintendent.	State superintendent.	Applicant must have completed 4 years of high-school training; must pass an examination in subjects required for second-grade certificate, and in addition in ancient history, medieval or modern history, physical geography, physics, or biology. If applicant has had 4 months' experience ad-

\* Exchanged for life certificate after total experience of 40 months, 9 months of which is in Missouri, if holder has secured additional training prescribed by board.

Second-grade county certificate.	do.....	In county in which issued.	do.....	2 years.	May be renewed once.	do.....	do.....	Additional examination on teaching ability and management. Applicant must have completed a 4-year high-school course and must pass examination on all subjects required for third-grade certificate, and in addition examination in algebra and literature, with average of 86 per cent.
Third-grade county certificate.	do.....	do.....	do.....	1 year.	Renewable once. Not more than 4 to be secured in 4 years.	do.....	do.....	Applicant must pass satisfactory examination in spelling, reading, penmanship, language lessons, geography, arithmetic, English grammar, United States history, civil government, physiology, hygiene, agriculture, pedagogy. Applicant must have average of 80 per cent and no branch below 60 per cent.
Special certificates.	do.....	In county.	do.....	Until next examination.		County superintendent.	County superintendent.	Issued to applicants who did not take the regular examination for good and sufficient reasons.
Teacher - training school certificate.	(a) County superintendent. (b) State superintendent.	In county in which school is located.	Elementary or rural school.	2 years.	May be converted into first-grade certificate after 32 weeks' experience and 1 term professional training in normal school or State university.			(a) Graduation from teachers' training course in high-schools provided for the purpose. (b) Graduation from rural-certificate course in State normal schools.

## State laws and regulations concerning teachers' certificates—Continued.

## MISSOURI—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Five-year State certificate.									(b) Graduation from State normal schools whose course is 2 years above high-school graduation. (c) Normal-school graduates who have completed 4 years of college work. (d) Graduation from standard college. (a) Graduation from colleges with training in special subjects. (b) Graduation from schools of high rank which prepare special teachers, provided course includes 12 hours in education. (Applicants for 5-year certificate must have minimum of 1 year of college work. Applicants for life certificates must have minimum of 2 years of college work.)
Five-year State special certificate: music, household arts, book-keeping and commercial branches, drawing, manual training, special primary, agriculture.	State superintendent.	State.....	Special subject for which issued.	5 years.....	Reissued on attendance at summer schools and recommendation from local superintendent or examination in one additional group subject selected by applicant and recommendation as above. <sup>1</sup>				Graduation from junior college with 12 hours in education. Applicant must have completed 4 years of high-school training; must pass an examination in subjects required for second-grade certificate, and in addition, in ancient history, medieval or modern or English history, physical geography, physics, or biology. <sup>1</sup> If applicant has had 4 months' experience ad-
Junior college certificate.	do.....	do.....	All schools.....	3 years.....	Not renewable.				
First-grade county certificate.	County superintendent.	Any county in State.	do.....	do.....	Renewable indefinitely for compliance with prescribed conditions.	8 months.....	State superintendent.	State superintendent.	

<sup>1</sup> Exchanged for life certificate after total experience of 40 months, 9 months of which is in Missouri, if holder has secured additional training prescribed by board.

Second-grade county certificate.	do.....	In county in which issued.	do.....	2 years	May be renewed once.	do.....	do.....	Additional examination on teaching ability and management. Applicant must have completed a 4-year high-school course and must pass examination on all subjects required for third-grade certificate, and in addition examination in algebra and literature, with average of 85 per cent.
Third-grade county certificate.	do.....	do.....	do.....	1 year	Renewable once. Not more than 4 to be secured in 4 years.	do.....	do.....	Applicant must pass satisfactory examination in spelling, reading, penmanship, language lessons, geography, arithmetic, English grammar, United States history, civil government, physiology, hygiene, agriculture, pedagogy. Applicant must have average of 80 per cent and no branch below 60 per cent.
Special certificates.	do.....	In county	do.....	Until next examination.		County superintendent.	County superintendent.	Issued to applicants who did not take the regular examination for good and sufficient reasons.
Teacher-training school certificate.	(a) County superintendent. (b) State superintendent.	In county in which school is located.	Elementary or rural school.	2 years	May be converted into first-grade certificate after 32 weeks' experience and 1 term professional training in normal school or State university.			(a) Graduation from teachers' training course in high-schools provided for the purpose. (b) Graduation from rural-certificate course in State normal schools.

*State laws and regulations concerning teachers' certificates—Continued.*  
**MONTANA.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Life certificate: (a) By examination.	State board of education.	State when registered by the county superintendent of schools in which applicant expects to teach.	All schools.	Life.		70 months.	State board of educational examiners.	State board of education.	Issued upon same conditions as a State certificate, except that in addition applicant must pass satisfactory examination and tests under such supervision and upon such additional subjects as prescribed by the State board of education, provided that if applicant holds an unexpired Montana State certificate obtained by examination, he shall be exempt from the examinations required for State certificate.
(b) By indorsement.	do.	do.	do.	do.		do.			Issued to holders of life certificates issued in another State if character, professional qualifications and experience are equivalent to those required for life certificates by examination in Montana.
Do.	do.	do.	do.	do.		27 months.			Issued to holders of degrees from Montana State University or Montana State College of Agriculture and Economic Arts, and to graduates of a course at the Montana State Normal College or other normal school under the control of the State board of education, which course extends 2 years beyond secondary schools.
Do.	do.	do.	do.	do.		18 months.			Issued to graduates of the Montana State Normal College or any normal school that hereafter may be established under the direction of the State board of education, with the degree of bachelor of pedagogy.

issued to graduates of any other college or normal school without or without the State in accordance with the regulations of the State board of regents for graduation. From said institutions are satisfactory and fully equivalent to those of the corresponding institutions of the University of Montana and provided that applicant has taught successfully at least as long after graduation as is required for the issuance of the certificate to graduates of the several institutions of the University of Montana.

issued to holders of Montana professional certificate in force if person has held same for at least 1 year and passes satisfactory examination in English literature, history of education and general history.

Issued to holders of State certificates issued in other States, provided that character, professional qualifications, and experience are substantially equivalent to those prescribed for the issuance of State certificates by examination in Montana.

A diploma from the Montana Normal College is in itself a State certificate after its issuance, and a diploma from the State university or the State college of agriculture and mechanic arts, when accompanied by a university certificate of qualification to teach, also constitute a State certificate good for 6 years after date.

[illegible]

State laws and regulations concerning teachers' certificates—Continued.  
MONTANA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State certificate—Continued. (b) Without examination.	State board of education.	State when registered by the county superintendent of schools in which applicant expects to teach.	All schools.	6 years.	Renewable for 6 years if holder has had 27 months' experience and has completed required reading circle work.	18 months.			Graduates of 4-year courses of standard colleges or universities who have had at least 11 semester hours of work in education and who have taught successfully 18 months, at least 9 months of which have been after graduation.
Do.	do.	do.	Elementary schools.	do.	do.	do.			Graduates from advanced normal courses in institutions whose diplomas entitle the holders to teach without examination in all public schools of the State in which they are located who have taught successfully for 18 months, at least 9 months of which have been after graduation. No course is considered advanced, whatever its name, unless it normally requires for completion at least 2 years beyond a fully accredited 4-year high-school course.
Professional certificate.	State board of educational examiners.	Any county registered with county superintendent.	All schools.	4 years.	May be renewed if applicant has taught successfully at least 12 months and completed the requisite amount of reading circle work.	do.	State board of educational examiners.	State board of educational examiners.	Applicant of physical health and pass examination in all branches required for a first-grade certificate and in addition in Montana school law, educational psychology, principles of education. Average, 80. Minimum, 70.



First-grade certificate.	do.	do.	Elementary schools.	3 years.	do.	12 months.	do.	do.	Applicant must give evidence of physical health and pass examination in all branches required for a second-grade certificate, and in addition in American literature, physical geography, elementary psychology, and school management. Average, 80; minimum, 70.
Second-grade certificate.	do.	do.	do.	24 months.	Not renewable.	do.	do.	do.	(a) Applicant must give evidence of physical health and pass examination in the following branches or others prescribed by the State board of education: Reading, writing, arithmetic, spelling, grammar, geography, physiology, and hygiene, United States history, civics, theory and practice of teaching, and agriculture. Average, 80; minimum, 70. <sup>1</sup> (b) Graduation from normal training course in a high school, as prescribed by the State board of education. NOTE.—After July 1, 1920, no person shall be given a regular certificate to teach who has not had at least 12 weeks of normal training work. This normal training work is established in the 11th and 12th grades of high schools and is under the direction of the State superintendent.
Special certificate: Music, drawing, elocution, physical culture, organized manual training, domestic science, agricultural culture, commercial and kindred subjects first 3 years primary and kindergarten.	do.	District requesting same.	Special subject	1 year.	Renewable during service in the district if applicant continues teaching.				Issued to any teacher who presents satisfactory evidence of special proficiency for teaching specified subject as shown by any certificate and credentials held by such teacher.

<sup>1</sup> Issued also for completion of subjects in the several institutions of the University of Montana.

## State laws and regulations concerning teachers' certificates—Continued.

## MONTANA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Temporary State certificate.	State superintendent.	District requesting same.	Elementary schools.	1 year.	Not renewable				Issued to any teacher whose experience, qualifications, and credentials entitle such teacher to State or life certificate in Montana, in the opinion of the State superintendent.
Temporary certificate.	State board of educational examiners.	State.	do.	Until next regular examination.	do.		State board of educational examiners.	State board of educational examiners.	Issued to applicants who have previously held valid certificates or who have had training beyond high school graduation. Such temporary certificates shall not be granted more than once to any person: <i>Provided</i> , That when prevented by illness or other valid reason from attendance at regular examination the board may, with the approval of the county superintendent, issue a second permit until the next regular examination: <i>Provided</i> , That when the teacher shows special fitness to teach and passes 70 or above in all subjects, or secures an average of 80 per cent, the board may, in its discretion, issue a permit until the next regular examination, such permit to be issued once only.

**NOTE.**—Holders of unexpired first or second grade certificates with satisfactory experience may have grades in all subjects above 80 per cent transferred to higher certificates. Any applicant for any grade of certificate who has completed any branch at institutions of the University of Montana may have such grade accredited without examination on any grade of certificate. No person shall be employed as teacher in a high school or as the principal teacher of a school of more than three departments who has not professional certificate or a Montana State or life certificate, or who is not a graduate of a reputable university, college, or normal school recognized by the State board of education.



*State laws and regulations concerning teachers' certificates—Continued.*  
NEBRASKA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
High school city State certificate.	State superintendent.	Good in all districts organized under Articles III and VI.	High schools.	3 years.	Convertible into professional high school city State certificate, valid for life, 24 months' experience and 1 year's professional work.	.....	State superintendent.	State superintendent.	(a) Issued to applicants who have a first-grade county certificate, and in addition pass an examination in psychology, zoology, geology, English literature, rhetoric, general science, chemistry, trigonometry, physics, and general history. A applicant must also have credit for 12 hours in education in an approved university, college, or normal school. (b) Issued to graduates of the higher course of a State normal school or other approved normal school of this or another State, or of a standard college in this or another State.
Special city State certificate.	..... do. ....	..... do. ....	Special subject	..... do. ....	Nonrenewable, but convertible into special professional city State certificate in same manner as other city State certificates.	.....	.....	.....	Issued to any person who has completed at least 1 year of special work in an approved conservatory, training, vocational, or industrial school, organized and equipped for the training of special teachers. In lieu of said 1 year's work in schools 1 year of practical experience as a competent mechanic in the craft or trade for teaching which certificate is issued may be accepted.
Elementary State certificate.	State normal universities.	Grades below high schools in districts organized under Articles III and VI.	All schools.	1-3 years.	Nonrenewable.	No experience.	.....	.....	Issued to graduates of elementary course of State normal.

Grade city State certificate.	State superintendent.	In grades 1-4, inclusive, of districts organized under Article XXII. <sup>1</sup>	.....	3 years.....	Convertible into professional grade city State certificate, valid for life, on completion of year normal or college work and 24 months' experience. Renewable by advanced study.	.....	.....	.....	Issued to graduates of approved 4-year high schools who have earned a first-grade certificate and have 12 hours' credits from university, college, or normal school in this or another State, 4 hours of which is in professional work.
Rural elementary certificate.	State normals.	State.....	Rural.....	.....do.....	.....	No experience.	.....	.....	Student must have completed course for rural teachers in normal schools 2 years in advance of the eighth grade and be 16 years of age before entering the course.
First-grade rural State certificate.	.....do.....	do.....	Rural villages and towns.	.....do.....	Merges into professional rural State certificate good for life.	.....	.....	.....	Completion of elementary rural course in normal schools or equivalent. Teachers of experience and graduates of 4 years' high-school course may receive certificate by pursuing such work as may be prescribed.
First-grade State certificate.	University, colleges, State normals.	do.....	Rural and towns up to 1,000 population.	.....do.....	Merges into life.	No experience.	.....	.....	Graduates of advanced course of training for teachers, given in institutions which issue the certificates.
First-grade county certificate.	County superintendent.	In the county where issued or any county of State when transferred by State superintendent.	.....do.....	.....do.....	First renewal. Average 85, no subject below 80 and credit for 6 college hours. Renewable thereafter on 12 college hours.	1 year.....	State superintendent.	State superintendent.	Applicant must have completed 12 weeks' normal training in approved school for second-grade certificate, must pass examination in all subjects required for second-grade certificate and in addition an examination in algebra, botany, geometry, and public school music. Applicant must attain an average of 80 per cent, with no branch below 75 per cent, provided that credits from normal training high schools shall be accepted in lieu of the examination for the four subjects last named.

<sup>1</sup> Districts organized under Article III have a population of less than 150 pupils and 3 directors; districts organized under Article VI have a population of over 150 pupils and 6 directors; districts organized under Article XXII have a population of over 1,000 inhabitants.

<sup>2</sup> Convertible into a professional city State certificate valid for life on completion of 1 year of normal school or college work, plus 24 month's experience.

## State laws and regulations concerning teachers' certificates—Continued.

## NEBRASKA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Second-grade county certificate.	County superintendent.	In the county where issued or any county of State when transferred by State superintendent.	In elementary schools.	2 years.....	Renewable once through taking the general average and earning credits for six hours of college work.	No experience.	State superintendent.	State superintendent.	Eight weeks of normal training in college, university, or normal school approved by the State board of education in Nebraska or in other States, or in approved high schools. In addition applicant must pass examination in orthography, mental arithmetic, United States history, reading, penmanship, geography, arithmetic, physiology and hygiene, English grammar, civil government, drawing, theory and art of teaching, and elementary agriculture. Average must be 80 per cent, with no branch below 70 per cent.
Emergency State certificate.	do.....	In city for which issued.	All schools.....	1 year.....					Issued in emergency only to graduates of State universities or standard colleges in the State at the joint request of the city and county superintendents and school board.
Emergency certificate.	State superintendent on recommendation of the county superintendent and the board.	Valid in district for which issued.	do.....	do.....					Issued for emergency only when there are no qualified teachers.

## NEVADA.

Life diploma high school.	State board of education.	In State.....	All high schools.	For life.....	(a and b) 60 months, 24 of which shall be in Nevada. (c) 45 months for graduates of University of Nevada.	(a) Holders of Nevada State high-school certificates or equivalent certificates from other States at discretion of State board of education. (b) Graduation from standard college if applicant holds renewable Nevada high-school certificate. (c) Graduation from University of Nevada. (a) Graduation from a standard normal school or equivalent qualifications or credentials or equivalent certificate from another State at the discretion of the State board. (b) Graduation from Nevada State Normal School.
Life diploma elementary.	.....do.....do.....	.....do.....	Elementary schools.	.....do.....	(a) Same as for life diploma for high schools. (b) 45 months' life graduate of Nevada State Normal School.	(a) Graduation from a standard normal school or equivalent qualifications or credentials or equivalent certificate from another State at the discretion of the State board. (b) Graduation from Nevada State Normal School.
High-school certificate to graduates of State normal college.	.....do.....do.....	.....do.....	In high schools.	5 years.....	Renewed after 45 months' experience for life.	Issued to graduates of the Nevada State Normal School, advanced course (4 years).
First-grade elementary certificate for normal-school graduates.	.....do.....do.....	.....do.....	Elementary schools.	.....do.....	Renewable for life on completion of 45 months' experience.	Graduation from Nevada State Normal School, elementary course (2 years).
State high school certificate.	.....do.....do.....	.....do.....	All high schools.	4 years.....	Renewable at the discretion of the State board of education.	(a) Examination in English grammar, spelling, arithmetic, geography, English literature, general history, history of the United States, civil government, current events, algebra, plane geometry, history and methods of teaching, civics, one of the following languages: Latin, French, Spanish, German, and three of the following: Rhetoric, English history, solid geometry, physical geography, chemistry, botany, and zoology. Applicant must have an average of 90 per cent, and be at least 20 years of age.

*State laws and regulations concerning teachers' certificates—Continued.*  
NEVADA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State high school certificate.									(b) Applicant may be allowed credit for any subject in the above list satisfactorily completed in a standard college, or may substitute credits for the whole examination. Must have a general average of 90 per cent in the subjects taken. (c) Graduation from standard colleges or universities of other States at discretion of State board of education.
Elementary certificate of the first grade.	State board of education.	In State...	Elementary schools.	3 years.....	Renewable at the discretion of the State board of education.	16 months.....			(a) Applicant must be at least 20 years of age and pass examination with an average of 85 per cent, no branch below 65 per cent, in the following subjects: Spelling, reading, writing, English grammar, mental arithmetic, written arithmetic, physiology, hygiene, history of the United States, geography, general history, drawing, music, civics, current events, elementary bookkeeping, theory and methods of teaching. (b) Graduation from a standard State normal school of this or other States.
Elementary certificate of the second grade.	.....do.....	.....do.....	.....do.....	2 years.....	Not renewable.				(a) Examination in all subjects required for first-grade elementary certificate. Average must be at least 75 per cent, with no branch below 60 per cent. (b) Completion of training course for teachers in county normal schools of Nevada (1 year in addition to 4-year high school course).



Special certificates: Music, drawing, manual training, commercial sub- jects, kindergarten, languages or other special subjects.	.....do.....	For subjects for which certificate is issued.	.....do.....	Not given.....	No experience.....	.....	Issued at the discretion of the State board when the appli- cant is qualified to teach any of the subjects specified.
Elementary cer- tificate of the third grade.	.....do.....	In school in which ap- plicant has been en- gaged to teach.	.....do.....	Not renew- able.	.....	.....	Applicant must be actively en- gaged in teaching in Nevada. Not more than one third grade elementary certificate granted to the same person.
Temporary certi- ficates.	Deputy su- perintendent of pub- lic instruc- tion.	In district for which issued only un- til next regular exami- nation.	Temporary.....	.....	.....	.....	Issued only at the request of the school district employing teachers.

## NEW HAMPSHIRE.

Service supervi- sory certificate.	State commis- sioner of education.	State.....	Supervisory unions.	Life.....	At least 3 years.	.....	Service supervisory certificate may be granted to persons who, in addition to the re- quirements for the supervi- sory certificate with the ex- ception of the examination, have, prior to Sept. 1, 1919, served as superintend- ent in the public schools of New Hampshire for at least 3 years.
Secondary teach- er's certificate, Grade A, Grade B.	.....do.....	.....do.....	A. Secondary schools. B. Junior high schools.	.....do.....	1 year.....	State board of education.	(a) Candidates for grade A certificates must present evi- dence for graduation from college. (b) Candidates for grade B certificates must present evidence for gradua- tion from a college or normal school. Candidates for either certificate must present them- selves for examination in psy- chology, pedagogy, school management, school law, history of education, New Hampshire secondary pro- gram.

*State laws and regulations concerning teachers' certificates—Continued.*  
**NEW HAMPSHIRE—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Secondary service certificate.	State commissioner of education.	State.	Secondary schools.	Life		10 years.			Three years of the candidate's experience must be in approved secondary schools of New Hampshire, and candidate must also present evidence of continued professional reading and study.
Elementary teacher's certificate.	do.	do.	Elementary schools.	do.		(a) 1 year, (b) 2 years, (c) 4 years in New Hampshire.	State board of education.	State board of education.	(a) Issued to graduates of New Hampshire normal schools with successful experience. (b) Issued to graduates of approved normal schools of other States who have successful experience and pass satisfactory examination in New Hampshire elementary program of study and New Hampshire school law. (c) Issued to graduates of high schools who have satisfactory experience for 4 years and pass examination in pedagogy, psychology, school management, New Hampshire school law. (d) Issued to graduates of approved New Hampshire training schools who have 2 years' successful teaching experience in New Hampshire and who pass examinations as in (c).
Elementary service certificate.	do.	do.	do.	do.		10 years' experience, 9 of which is in New Hampshire.			Issued to persons with successful teaching experience who present evidence of continued professional reading and study.
Supervisory certificate.	do.	do.	Supervisory unions.	3 years.	May be renewed or made permanent.	5 years.	State board of education.	State board of education.	Candidates must be graduates of a registered college granting bachelor's degree and pass satisfactory examination in the following: History of education, school organization and management, school

<b>Secondary license.....do.....</b>	High schools...1 year.....	May be renewed on recommendation of the superintendent and report of the inspector for 1 or 3 years.	(a) None. (b) Experience; amount not specified. (c) Experience; amount not specified. (d) Experience; amount not specified.			law of New Hampshire psychology, pedagogy, elements of general sociology, New Hampshire programs of study. (a) Bachelor's degree from an approved college. (b) Qualifications considered individually. Credit for specialized work, as European study, for example, in case applicant teaches languages. Similar considerations for other special subjects given by the board. (c) Teacher with credit for past secondary study 1 to 3 years. (d) Other individual cases approved by State board. Note: The above qualifications are for 1919-20 only and subject to change annually at discretion of the board. (a) To teachers employed in September, 1919, with a year's contract. (b) To teachers employed in September, 1919, with a year's contract. (c) To teachers employed in September, 1919, with a year's contract and graduation from approved training school of high-school training class. (d) Same as above except graduation from nonapproved normal school instead of training class. (e) Graduation from New Hampshire high school and credit for 1 summer's work in New Hampshire normal school contract as above. Each case considered individually and rules change from year to year. In 1919 granted to high-school graduates until January on condition that they comply with certain conditions and prescribed professional work.
<b>Elementary license.....do.....</b>	Elementary schools.....do.....	do.....do.....	(a) 20 weeks in New Hampshire. (b) 2 years in another State. (c) None. (d) None. (e) None.			
<b>Permits.....do.....</b>	do.....do.....	do.....do.....				

*State laws and regulations concerning teachers' certificates—Continued.*  
NEW MEXICO.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Professional life certificate.	State board of education.	State.....	All schools...	Life.....	.....	45 months; 9 months in New Mexico.	State board of education.	State board of education.	<p>Applicant must qualify under 1, 2, and 3 as follows: (1) Minimum for which no substitution will be accepted. Graduation from a standard high school, the course in which shall include not less than 15 high-school units, including the following: United States history, including New Mexico history (4) unit; United States civics, including New Mexico civics (4) unit; physiology and hygiene (4) unit; an industrial subject (agriculture, manual training, home economics, commercial branches) (4) unit; geometry (plane) 1 unit; algebra, 1 unit; composition and rhetoric, 1 unit; history of English literature and classics, 1 unit; general history, 1 unit; laboratory science, 1 unit; history of American literature and American classics, 1 unit; foreign languages, 2 units; electives sufficient to total 15 units.</p> <p>(A high-school unit represents a year's study in any subject. This definition assumes that the length of the school year is from 36 to 40 weeks, the recitation period not less than 40 minutes in length, and that the study is pursued five periods per week. It further assumes that 2 hours of manual training or laboratory work is equivalent to 1 hour of classroom work.)</p>

(2) Graduation from a standard 2-year course in a normal school or its equivalent. This course must include psychology, 15 term hours; school management, 5 term hours; principles of education, 10 term hours; special methods, 15 term hours; history of education, 10 term hours; observation and practice, 15 term hours; and elective to the amount of 26 term hours. (A term hour of credit shall consist of a course of 12 weeks of 1 recitation period per week, of not less than 50 minutes in length.) (3) Experience must be certified to by some school official. Fifteen term hours of observation and practice will be accepted in lieu of 27 months of the 45 months of successful experience.

(a) Graduation from the professional course of the State normal school or the New Mexico Normal University.

(b) Fulfillment of scholarship requirement's same as for professional life certificate. For this certificate 15 term hours of observation and practice teaching may be accepted in lieu of the required experience.

Graduation from the New Mexico State Normal School, the New Mexico State Normal University, or the State University, courses leading to the B. A. degree and including psychology 6 hours; principles of secondary education 3 hours; history of education 6 hours. Applicants major subject shall cover 30 hours, including not less than 6 hours in methods of teaching that subject.

Five-year professional certificate.	.....do.....	.....do.....	5 years.....	(a) May be indorsed for life after 45 months' experience.	27 months; 9 months in New Mexico.	.....	.....	.....	.....
High-school professional certificate.	.....do.....	.....do.....	High schools.....	3 or 5 years.....	Good for 5 years if applicant has 11 units of observation and practice. May be extended for 2 years and made permanent with 45 months' successful teaching.	.....	.....	.....	.....

## State laws and regulations concerning teachers' certificates—Continued.

## NEW MEXICO—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Elementary State certificates of the second grade.	State board of education.	State	Elementary schools...	2 years	Not renewable		State board of education.	State board of education.	Examination in the following: Reading, penmanship, orthography, grammar, and composition, geography, arithmetic, physiology, United States history, civics, New Mexico history and civics, school management and industrial subject. Applicant must attain a general average of 75 per cent, with no branch below 50 per cent.
Elementary State certificate of the first grade.	do.	do.	do.	Good for year if applicant has had no experience: valid for 3 years if applicant has 7 months' experience in State.	Renewable for 3-year periods if applicant has experience and credits for reading circle work approved by the State board; 8 weeks summer school attendance will be accepted in lieu of reading circle work.		do.	do.	(a) Examination in the following subjects: Reading, penmanship, orthography, English grammar and composition, geography, arithmetic, physiology, United States history, civil government, New Mexico history and civics, pedagogy, psychology, and one of the following: Algebra, botany, zoology, physics, bookkeeping, Spanish, and industrial subject (manual training, domestic science, agriculture). Applicant must make a general average of 80 per cent with no grade lower than 75 per cent, or (b) graduation from a 4-year high school course, which includes subjects approved by the State board, or (c) graduation from the full course of study of St. Michael's College.
Elementary State certificate of the third grade.	do.	do.	do.	1 year	Not renewable. Not more than two will be issued.		do.	do.	Examination in the following subjects: Reading, penmanship, orthography, grammar and composition, geography,

physiology, arithmetic, United States history. Applicant must attain a general average of 60 per cent, with no branch below 50 per cent.

Requirements not specified, but applicant's qualifications must be satisfactory to the State board of education.

Do.  
Do.  
Do.

## NEW JERSEY.

State elementary certificate: Limited.	State board of examiners.	State.	Elementary	1 year from beginning of year applicant begins to teach.	Renewable once for 2 years without examination.	3 to 5 years on limited certificate.	State board of examiners.	State board of examiners.	Graduation from approved high school or its equivalent, attendance at two sessions of summer school and examination in orthography, geography, English grammar, school methods and management, arithmetic, physiology and hygiene including health exercises, reading, United States history, English composition, penmanship, drawing, physical training.
Special certificates: 1. Music	do.	do.	All schools.	do.	Renewable on successful experience.	do.			NOTE.—Applicants for all certificates must receive at least 70 per cent in all examinations.
2. Vocational	do.	do.	do.	do.	do.	do.			Holder of limited certificate.
3. Art	do.	do.	do.	do.	do.	do.			(a) Examination in the following required subjects: Psychology, civics, history of education, literature, including literature for the grades, music, manual training, European history, elementary or general science, and any three of the following electives: Botany, agriculture, elementary algebra, chemistry, zoology, plane geometry, advanced United States history, Latin, German, French.
4. Spanish	do.	do.	do.	do.	do.	do.			
Permanent	do.	do.	Elementary to teach and supervise school with not more than 9 teachers.	Life.		do.	do.	do.	

## State laws and regulations concerning teachers' certificates—Continued.

## NEW JERSEY—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State elementary certificate—Con. Permanent.....									(b) Credit by examination or indorsement for at least 4 required and 2 elective subjects during first 3 years' experience, and for remainder during following 2 years.
Secondary State certificate: Limited.....	State board of examiners.	State.....	In any branch of secondary department included in certificate. Does not entitle holder to supervise.	3 years from the beginning of the school year in which applicant begins to teach.	Renewable for 2 years.		State board of examiners.	State board of examiners.	Holder of diploma from approved college or from approved 4-year high school teachers' course of a State normal school, or applicant may hold New Jersey permanent elementary State certificate or the equivalent. Applicant must also take examination in subjects or subject to be taught and school management and methods of teaching with special reference to secondary education, history of education, psychology, physiology and hygiene, unless covered by diploma showing 30 hours in education, 30 hours in history of education, 90 hours in psychology, and 60 hours in physiology and hygiene.



Applicant must hold limited secondary certificate on which he has taught for at least 3 years.

(a) Applicant must be at least 25 years of age and hold New Jersey permanent elementary or permanent secondary certificate or the equivalent, and must present testimonials of executive ability from the county or city superintendent of the school, and of the board of education under which he has been employed. He must pass examination in school organization, including New Jersey school law.

(b) Applicant must be graduate of approved college or university.

Applicant must hold limited supervisor's certificate.

NOTE.—Any person holding a first-grade State certificate shall be deemed and taken to hold a permanent supervisor's certificate.

**3 years.....**

(a) 5 years' experience in teaching and at least one year as principal or supervisor of a school or schools employing at least 5 assistant teachers.

(b) 5 years as principal or supervisor.

**3 years' experience as supervisor.**

## Life.

Not given.

## Life.

Secondary school, either as teacher, principal, or supervisor of school or district employing not more than 9 assistants not having a superintendent.

supervision of instruction in any of the secondary and elementary schools and for teaching any branch needed to secure the certificate.

do.

**Permanent...**

Supervisor's certificate:  
Limited.....

**Permanent.**

## State laws and regulations concerning teachers' certificates—Continued.

## NEW JERSEY—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Special State certificate for kindergarten, manual training, cooking, sewing, drawing, book-keeping, stenography and typewriting, penmanship, music, modern languages, physical training, elocution, agriculture, for foreign-born residents, blind classes, mental defective classes. Limited.....	State board of examiners.	State.....	To teach or supervise any grades in the subject or subjects covered by such certificate.	1 year.....	Renewable for 2 years.	.....	State board of examiners.	State board of examiners.	(a) For the kindergarten certificate the applicant must be a graduate of an approved 4-year high school course and have passed examination in kindergarten subjects. (b) For the drawing certificate, cooking, sewing, bookkeeping, penmanship, music, applicant must pass examination in the subjects to be taught and allied subjects. For the stenography and typewriting, modern languages, physical training, elocution certificate, applicant must be a graduate of an approved 4-year high school and in addition pass examination on the subject he is to teach and allied sub-



## State laws and regulations concerning teachers' certificates—Continued.

## NEW JERSEY—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Vocational certificates (for positions in State-aided schools)—Continued. (3) Household arts certificate—Limited	State board of examiners.	State	To teach household arts in State-aided vocational schools.	1 year	Renewable as other vocational certificates (limited).	Experience satisfactory to the board of examiners.			
Permanent	do	do	do	Life		3 years.			Graduation from recognized college or school giving 2-year course in general household arts, or academic training satisfactory to the board of examiners. Applicant must be at least 21 years of age and possess certificate of health. Applicant must possess limited household arts certificate.
(4) Technical vocational certificate—Limited	do	do	To teach technical subjects such as drawing, mathematics or other sciences relating to the vocation taught in State-aided schools.	1 year	Renewable as other limited vocational certificates.		State board of examiners.	State board of examiners.	Applicant must have any one of the vocational certificates mentioned above. First-grade county certificate or any form of State certificate other than the special certificate and in addition examination in prescribed subjects by the State board, and credentials from approved school in subject applicant wishes to teach.
Permanent	do	do	do	Life		3 years			Applicant must possess limited technical vocational certificate.
(5) Academic certificate—Limited	do	do	To teach academic subjects in State-aided vocational schools.	1 year	Renewable as other limited vocational certificates.				Issued to applicants who hold first-grade county certificate or any form of State certificate other than special, or any one of the vocational certificates named above.

Permanent	do	do	do	Life	3 years	Applicant must hold limited academic certificate and recommendation from superintendent of schools, and commissioner of education.
(d) Supervisor's certificate—Limited	do	do	do	1 year	Not renewable	Applicant must hold permanent industrial, agricultural, household arts, academic or technical vocational certificate, and must satisfy the State board of examiners that he has had adequate experience in vocational schools.
Permanent	do	do	do	Life	1 year	Applicant must hold limited supervisor's vocational certificate, and have the recommendation of the superintendent of schools and the commissioner of education.
Provisional elementary certificate.	County or city superintendent.	In county or city under jurisdiction of the superintendent who grants the certificate.	Elementary	Good until the last day of the second month succeeding the date of the next examination.	Renewable once applicant receives credit for at least 5 of the subjects required for a limited elementary certificate.	Granted at the discretion of the county or city superintendent. Applicant must make application for corresponding class of certificate to the State board of examiners. All applicants must be graduates of approved 4-year high school and have completed at least one session of approved summer school course.
Provisional secondary certificate.	do	do	Secondary	do	Not renewable	Same as above, except that regulation concerning high school graduation and summer school attendance is omitted.
Provisional special certificate.	do	do	Special subjects.	do	do	Do.
Provisional supervisor's certificate.	do	do	do	do	do	Do.
Provisional certificate for vocational State-aided schools.	do	do	State-aided vocational schools.	do	do	Do.

## State laws and regulations concerning teachers' certificates—Continued.

## NEW YORK.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State certificate....	Commissioner of education and president of the university.	In State....	All schools....	For life.....		3 years.....	State department of education.	State department of education.	Applicant must pass at a minimum standing of 75 per cent an examination in each of the following subjects: Spelling, arithmetic, geography, English grammar, algebra, physiology and hygiene, American history, composition (and a minimum of 60 per cent each of the following with a total average of 75 per cent): History of education or psychology, methods of teaching, school law, school management, English and American literature, a foreign language, plane geometry, physics, chemistry or physical geography, botany or zoology, history (ancient, modern, or English), civics, drawing.
College graduate life certificate.	do.....	do.....	do.....	do.....		3 years, 2 of which must be in New York.	do.....	do.....	Holder of a college graduate limited certificate who has passed at a minimum rating of 75 per cent the following examinations: Psychology, history of education, principles of education, methods of teaching.
College graduate permanent certificate.	do.....	do.....	do.....	do.....		3 years.....	None.....	None.....	Issued to the holder of a college graduate professional provisional certificate who had 3 years' experience obtained during the validity of the certificate.
Normal diploma.	do.....	do.....	Any elementary school.	do.....			do.....	do.....	Applicant must have completed a 2-year professional course in a New York State normal school.

Normal certificate	do.	do.	do.	do.	do.	6 years' experience in teaching.	do.	do.	do.	Issued to applicants on evidence of 2 years' high school work and four summer courses in a State normal school.
Training class certificates valid in sub academic grades.	District, village, or city superintendent.	In district, village, or city for which issued or indorsed.	In grades 1 to 8, inclusive.	10 years	Renewable for 10-year periods on 5 years' successful experience in teaching.	3 years	State department of education.	State department of education.	Applicants must hold training-class certificate and regent's academic diploma or evidence of graduation from a 4-year approved high school course and in addition have had 3 years' successful experience in teaching.	
Limited State certificate.	Commissioner of education and president of the university.	In State...	All schools	5 years	Nonrenewable	do.	do.	do.	Applicant must pass at a minimum standing of 75 per cent an examination in each of the following subjects: Spelling, arithmetic, geography, English grammar, algebra, physiology and hygiene, American history, composition; and at a minimum 60 per cent each of the following, with a total average of 75 per cent: Physics, civics, drawing, history of education or psychology, methods of teaching, school management, school law. Applicant shall also earn 10 additional credits in subjects in the following groups: English and American literature, a foreign language, plane geometry, physics, chemistry or physical geography, botany or zoology, history (ancient, modern, or English), civics, drawing.	
Rural school renewable certificate.	District superintendent.	In superintendent's district for which issued or indorsed.	School district not maintaining an academic department.	3 years	Renewable after 2 years' experience for 10 years.	None	do.	do.	Applicant must pass examinations with a minimum rating of 75 per cent in writing, spelling, arithmetic, geography, English for teachers, algebra, physiology and hygiene, nature study, and agriculture, history of education, school management, methods of teaching, school law, drawing, American history with civics, and a foreign history.	

## State laws and regulations concerning teachers' certificates—Continued.

## NEW YORK—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Training class certificate.	District superintendent.	In superintendent's district for which issued or indorsed.	School district not maintaining an academic department.	3 years.....	Renewable for a 5-year period on 3 years' successful experience and thereafter for 5-year periods on 3 years' successful experience.	None.....	State department of education.	State department of education.	Applicant must have complied with requirements for admission to training class, and in addition must have passed an examination with a minimum standing of 75 per cent in each of the following subjects: Writing, spelling, arithmetic, geography, language, physiology and hygiene, United States history with civics, drawing, agriculture, methods of instruction in reading, spelling, and writing, psychology and principles of education, school law, school management.
Training school certificate.	City superintendent.	In any district, village, or city for which issued or indorsed.	In any elementary school in the State.	do.....	Renewable for a period of 10 years after 2 years' experience and thereafter for periods of 10 years on 5 years' experience in teaching.	do.....	do.....	do.....	Applicant must have complied with all requirements for admission to New York State training schools, and in addition must have attained a minimum rating of 75 per cent in examinations in the following subjects unless exempt therefrom under provisions hereafter enumerated: Arithmetic, geography, language, physiology and hygiene, American history with civics, drawing, methods in reading, writing, and spelling, psychology, history of education, school management. (a) A graduate of a university will be exempt from examination in all subjects except those which include matter relating to the methods of teaching. (b) A



College graduate professional professional certificate.	Commissioner of education and the president of the university.	In State...	All schools.....do.....	Renewable by indorsement.	None.....	None.....	member of a training school who has completed 1 year's work in a State normal school will be exempt from examination in all subjects except those which are included in the second year of the training school course. Graduation from a college registered by the regents of the University of the State of New York if applicant has completed therein a course of education approved by the president of the university for the training of teachers.
Special certificates: Kindergarten, music, art, drawing, manual arts, commercial branches, and other subjects.	.....do.....	In district, village, or city for which certificate is issued or indorsed.	Special subjects only. .....do.....	Renewable for 5-year periods after 2 years' experience.	State department of education.	State department of education.	An applicant must be a graduate of an approved high school or its equivalent, and also of an approved professional institution in which he has completed a 2-year course of study in the special subject he desires to teach. If certificate is for kindergarten, commercial branches, or drawing, candidates must pass examinations in special subjects with a minimum rating of 75 per cent, unless excused from same by president of the university for the completion of an approved course in a degree-conferring institution registered with the regents of the University of the State of New York.
Academic certificate.	District superintendent.	In superintendent's district for which issued or indorsed.	School district not maintaining an academy department for which school certificate is issued or validated by the district superintendent.	Renewable 1 year for each 5 credits obtained in examination for State life certificate or for the successful completion of 6 weeks' summer course in a State normal school.	do.....do.....	do.....do.....	Issued to holder of regent's academic diploma who has completed a summer course of 6 weeks for the training of rural teachers in a State normal school.

## State laws and regulations concerning teachers' certificates—Continued.

## NEW YORK—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
College graduate limited certificate.	Commissioner of education and president of the university.	In State...	In any school except in grammar and primary grades of cities and villages of 5,000 or more inhabitants employing a superintendent.	2 years.....	Renewable for 1 year.	None.....			Applicant must be a graduate and must have received a bachelor's degree from a college registered by the regents of the University of the State of New York.
Equivalent certificate.	do.....	do.....	In any elementary school.	1 year.....	May be exchanged for permanent.	1 year or more.	do.....	do.....	Applicants must show evidence of successful experience in teaching and of an education equivalent to that required for graduation from a general professional course in a New York State normal school.

NOTE.—All applicants must be citizens of the United States and 18 years old. Prerequisite for license to teach in the primary and grammar schools of any city in school district authorized by law to employ a superintendent of schools: (1) 3 years' experience, or (2) prescribed course in State normal school, or (3) New York life certificate, or (4) graduation from approved school for the professional training of teachers.

## NORTH CAROLINA.

Professional life certificate.	State board of examiners and institute conductors.	State.....	All schools.....	Life.....	2 years.....	None.....	None.....	None.....	Graduation from an A grade college with credits for 30 semester hours in education, including psychology, history of education, school management and administration, methods of teaching and educational psychology. In addition, 2 years of successful experience in teaching or supervising is required.

High school teacher's certificate.	.....do.....	High schools.....	3 years.....	Renewable for (a) reading circle work; (b) summer school attendance.	3 years.....	State board of examiners and institute conductors.	State board of examiners and institute conductors.
High school principal's certificate.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
Farm-life certificate.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	None.....	None.....

Applicant must have had 2 or more years of work in an A or B grade college and must have a minimum of 3 hours of professional work through the year in an approved department of education or three 5-hour courses in professional subjects for at least 6 weeks in an approved summer school. (b) Examination in the subjects he may be required to teach in the high school, the school law of North Carolina, and in English grammar, composition, and literature.

(a) Graduation from A grade college or the equivalent and 6 hours of professional work through the year in an approved department of education. 3 hours of which must be in secondary education or (b), examination as for high school teachers, except that it must cover in addition to those requirements American history, algebra, arithmetic, plane geometry, English history, either Latin, French, or German, and one of the following: General science, physics, physical geography, agriculture, biology, botany, chemistry. Examination also includes questions of a professional nature on books specified by the State board of examiners and institute conductors.

Graduation from North Carolina State College of Agriculture or its equivalent and at least 2 years' work in agriculture. Professional requirements same as for high school principal's certificate, except 3 hours must be in methods of teaching agriculture.

## State laws and regulations concerning teachers' certificates—Continued.

## NORTH CAROLINA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Home economics special certificate.	State board of examiners and institute conductors.	State .....	High schools.	3 years.			State board of examiners and institute conductors.	State board of examiners and institute conductors.	Graduation from the State normal and industrial college, or college of equal rank, with 2 years' work in home economics and professional requirements same as for high school principals, except 3 hours must be in methods of teaching home economics.
Mechanic arts special certificate.	.....do.....	.....do.....	.....do.....	.....do.....			.....do.....	.....do.....	Graduation from the North Carolina State College of Agriculture or college of equal rank, with at least 2 years in mechanic arts and professional work as required for high school principal's certificate, except that the 3 hours must be in methods of teaching mechanic arts.
Elementary teacher's certificate.	.....do.....	.....do.....	Elementary schools.	2 years.	Renewable for (a) reading circle work; (b) summer school attendance.		.....do.....	.....do.....	(a) Completion of a 4-year standard high school course or its equivalent of one 3-hour course for a period of one scholastic year in theory and practice, or three 5-hour professional courses for 6 weeks in an approved summer school and 12 lessons of 1 hour each in North Carolina school law or the equivalent thereof, or (b) examination in spelling, drawing, reading, arithmetic, language and composition, English grammar, geography, physiology and hygiene, history of North Carolina and United States,

[illegible]

1 "A and B grade" refers to classification of higher institutions made by State board for certification purposes. All require graduation from high school for entrance. Some are junior colleges or normal schools and some standard colleges.

## State laws and regulations concerning teachers' certificates—Continued.

## NORTH CAROLINA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Superintendent's certificate.	State board of examiners and institute conductors.	State .....	All schools. ....	2 years. ....	Renewable for (a) reading circle work; (b) summer school attendance.	2 years' teaching experience with- in the pre- ceding 5 years or 3 years' super- vising expe- rience with- in the pre- ceding 7 years, or 5 years' super- vising expe- rience with- in the pre- ceding 10 years.	State board of examiners and institute conductors.	State board of examiners and institute conductors.	Same as for high school principal's certificate.
Assistant superintendent's certificate.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	1 year. ....	.....do.....	.....do.....	Do.
Special certificates: Kindergarten, commercial branches, physical training, music, drawing, manual training, public speaking.	.....do.....	.....do.....	Subject specified.	.....do.....	Reading circle.	.....do.....	None. ....	None. ....	Graduation from 4-year standard high school or its equivalent, and in addition 2 years' training in an approved institution of collegiate rank in the special subject on which the certificate is sought, 6 hours through the year, in education, of which 4 semester hours must be in methods of teaching the special subject.

## NORTH DAKOTA.

First-grade professional certificate: (1) Issued on examination.	State board of education.	State.....	All schools.....	(a) 5 years; (b) life.	Convertible into life certificate.	18 months.....	State board of education.	State board of education.	(a) Applicant must have all the qualifications necessary for a second-grade certificate and in addition thereto be found proficient in the following subjects: Foreign language, natural science, other than the one presented by the second-grade certificate, ethics, logic or sociology, political science, economics or domestic science, and any two subjects of college grade listed for the second-grade professional certificate and not previously offered by the applicant. (b) The above may be converted into a life certificate when applicant secures a college degree.
(2) Issued on diploma.	.....do.....	.....do.....	.....do.....	(a) 2 years; (b) 3 years.	(a) Convertible into life certificate after 9 months' experience. (b) Convertible into certificate valid for 5 years after 9 months' experience and renewable for life after 5 years' experience.	None, or 3 years. None for initial certificate; 9 months for conversion. (b) None, or 3 years.	.....	.....	(a) Issued to graduates of the 4-year course of Teachers' College, University of North Dakota. (b) Issued to holders of bachelor's diplomas granted by universities and colleges of recognized standing, provided the diplomas imply at least 2 years' courses, or 16 semester hours of professional preparation for teaching. In lieu of such professional study 3 years of successful experience in teaching gained after graduation is accepted as meeting the requirements.

*State laws and regulations concerning teachers' certificates—Continued.*  
**NORTH DAKOTA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Second-grade professional certificate: Issued on examination.	State board of education.	State .....	All schools except 4-year high schools.	5 years .....	Renewable for 5 years if applicant completes required amount of professional study toward first-grade professional certificate.	9 months .....	.....	.....	(a) Applicant must be at least 30 years of age, and must have the qualifications necessary for first-grade elementary certificate, and in addition must be found proficient in the following subjects of advanced grade: Psychology, history of education, school administration, methods in elementary subjects, rhetoric and composition, American and English literature, ancient, English, or American history, one natural science, higher algebra, solid geometry, manual training, or domestic science. (a) Issued to holders of a diploma from the advanced or 5-year curriculum of the State normal schools, or its equivalent, or to holders of a diploma from the 2-year curriculum for high school graduates. After 9 months' experience, the certificate may be renewed for life. (b) Issued to holders of a diploma from the 4-year curriculum of the State normal school or the 1-year curriculum for high school graduates. This certificate is good for 2 years, and after 9 months' experience may be renewed for 5 years. (c) Issued to holders of a diploma or certificate from institutions with courses equivalent to the 4 or 5 year curricula of the North Dakota State normal schools; provided that the courses in-
(2) Issued on diploma.	.....do.....	.....do.....	.....do.....	(a) 2 years; (b) 2 years; (c) 2 years.	(a) Renewable for life after required experience. (b) Renewable for 5 years after required experience, at discretion of the board. (c) Same as (b).	(a) and (b) none. (c) 3 years after receiving diploma described in column 10. (a) and (b) given for 2 years, without experience, and may be exchanged for life duration after 9 months' successful experience.	.....	.....	



clude professional study and preparation, or that the holder has had 3 years' experience in teaching. This diploma may be exchanged for professional certificate for 5 years or for life after 9 months' successful experience in teaching.

(a) Applicant must be at least 20 years of age and must in addition to those subjects required for second-grade elementary certificate be found proficient in: Elements of psychology and four of the following subjects of secondary grade: Elementary algebra, plane geometry, physics, physical geography, botany, elements of agriculture, nature study, manual training, domestic science, American literature. (b) Issued also to applicants who hold second-grade elementary certificates and have the required experience and are at least 20 years of age.

(a) Granted to graduates of 4-year high schools, 20 years of age, who have had professional and review subjects approved by the State board of education, and the required experience. The State board of education recognizes high schools within the State and those without the State on the accredited list of the North-Central Association. (b) Granted to holders of the certificate of completion issued by the North Dakota State normal schools to applicants who complete the 3-year curriculum for eighth-grade graduates, and who have the necessary experience and are 20 years of age.

First-grade elementary certificate: (1) Issued on examination.	.....do.....	State must be recorded by superintendent schools.	Elementary schools and ninth grade in schools which have 1 year of high school work only.	3 years.....	Renewable once only.	8 months.....	State board of education.	State board of education.	State board of education.
(2) Issued on diploma.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....			

## State laws and regulations concerning teachers' certificates—Continued.

## NORTH DAKOTA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Second-grade elementary certificate: (1) Issued on examination.	State board of education.	In any county of State when recorded by county superintendent schools.	Elementary schools.	2 years.	Renewable on successful experience, reading circle work, and attendance at a 6-weeks' professional school.		State board of education.	State board of education.	Issued to persons over 18 years of age who are found proficient in the following subjects: Reading, orthography, language and grammar, geography, United States history, physiology, hygiene, including physical culture, civil government, pedagogy, and one of the following: Music, drawing, agriculture, nature study, domestic science, manual training; proficiency in spelling and writing will be determined from the papers submitted. (a) Issued to holders of diplomas from North Dakota high schools or other high schools accredited by the North Central Association who have had the prescribed courses in psychology, school management, methods and review subjects. (b) Issued to holders of certificates of completion issued by the State normal schools. (Certain courses offered to persons who are not high school graduates.)
(2) Issued on diploma.	do.	do.	do.	do.	do.				

Special certificates may be issued to applicants who possess qualifications equivalent to those required for second-grade professional certificates. Applicant for a special certificate must satisfy the board of education of his proficiency in the subject he desires to teach. Each application will be considered on its individual merits.

Special certificates: Drawing, music, kindergarten, primary subjects, agriculture, commercial subjects, domestic science, manual training.	.....do.....	State.....	Subjects for which issued.	Validity prescribed by the State board.	.....	.....	At the discretion of the State board.	At the discretion of the State board.
State high school certificate.	State board of examiners.	State.....	High schools..	Life.....	.....	See scholarship requirements.	State board of examiners.	State board of examiners.

## OHIO.

(a) Issued to holders of degrees from approved colleges who have completed a 50 months' period of successful teaching experience.  
 (b) To holders of State professional high school certificates who have taught 24 months since receiving same.  
 (c) Examination in geometry, high school English, Latin or other foreign languages, civic government, algebra, physics, physiology, history of education, science of education and any three of the following: Latin or other foreign language, chemistry, botany, zoology, geology, astronomy, trigonometry, economics, logic, and any one of two of the usual divisions of history, manual training, and home economics. A minimum grade of 80 per cent is required. Prerequisite for entrance two years of college or normal school work, one fourth of which must be professional.

*State laws and regulations concerning teachers' certificates—Continued.*  
OHIO—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State elementary certificate.	State board of examiners.	State.....	Elementary schools.	Life.....	.....	See scholarship requirements.	State board of examiners.	State board of examiners.	(a) Granted to applicants who have completed a 4-year high school course or its equivalent and a 1-year normal school course approved by the State department of public instruction, or its equivalent, and had 100 months' experience. (b) Granted to holders of a State provisional certificate who have taught 24 months sincerely teaching it. (c) Granted to graduates from a standard 2-year normal school who have 50 months' experience. (d) Granted on satisfactory examination in all elementary subjects and in elementary algebra, elementary physics, and principles of teaching. Prerequisite for entrance, graduation from a 4-year high school and 1 year of college or normal school work, including 15 semester hours of professional work and 50 months of teaching experience.
Provisional high school certificate.	State superintendent.	.....do.....	High schools..	4 years.....	Renewable by State superintendent.	.....	.....	.....	Issued to graduates from any normal school, teachers' college, college or university, who have completed a full 4-year academic and professional course in such institution and who are also graduates of a 4-year high school.
Provisional elementary certificate.	.....do.....	.....do.....	Elementary schools.	.....do.....	.....do.....	.....	.....	.....	Issued to graduates from any normal school, teachers' college, college or university, who have completed a full

Provisional special certificate: Music, drawing, penmanship, manual training, physical culture, domestic science, agriculture, kindergarten or modern language.	.....do.....	Special subject only.	.....do.....	Renewable by State superintendent. May be made life certificate after 24 months' experience.	.....do.....	.....do.....	.....do.....	2-year academic and professional course in such institution and who possess a diploma from a first-grade high school or its equivalent. Issued to graduates of courses of at least two years in length, including at least 18 semester hours of professional preparation, four of which are in practice teaching and observation. Applicant must also be a graduate of a full 4-year high school course.
Provisional kindergarten certificate.	.....do.....	Kindergarten and first, second, and third grades of elementary schools.	.....do.....	Renewable by State superintendent.	.....do.....	.....do.....	.....do.....	Graduation from normal course not less than 2 years in length, of which is approved by State superintendent of public instruction, and whose entrance requirement is graduation from a 4-year high school. Issued to applicants who meet the standards required by the State board of education and the State superintendent of public instruction for State certificates in special subject.
Vocational certificate: Home economics, agriculture, trade and industrial subjects.	County or city board of examiners.	Subject for which given.	.....do.....	.....do.....	.....do.....	.....do.....	County or city board of examiners.	Examination in English, principles of teaching and 5 elective branches. Examination includes practical test in teaching. A prerequisite for entrance to this examination is 36 weeks' professional training and 4-year high school course.
High school certificate.	.....do.....	High schools.	1 or 3 years, depending on grades and experience, as determined by rules of local boards of examiners.	Not stated.	.....do.....	.....do.....	.....do.....	Examination in all the common branches, including agriculture and practical test in teaching. A prerequisite for entrance to this examination is 36 weeks of professional training. Professional training is expected to be in addition to full 4-year high school course.
Elementary certificate.	.....do.....	Elementary schools.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	Examination in all the common branches, including agriculture and practical test in teaching. A prerequisite for entrance to this examination is 36 weeks of professional training. Professional training is expected to be in addition to full 4-year high school course.

1. City boards of examiners provide their own questions until 1924 and prescribe qualifications to take the examination. Also they may issue special certificates for teaching defective, deaf and the like, to those who have the qualifications to secure elementary certificates and such additional qualifications as the superintendent of public instruction may prescribe.

## State laws and regulations concerning teachers' certificates—Continued.

## OHIO—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Special certificate.	County or city board of examiners.	County or city.	Special subject	1 or 3 years depending on grades and experience as determined by rules of local boards of examiners.			State superintendent.	County or city board of examiners.	(a) Examination in special subject or subjects and in theory and practice of teaching. Examination includes practical teaching test. Prerequisite same as for high-school certificate. (b) Issued to those who have completed a 1-year training course approved by the State superintendent of public instruction.
Normal student's certificate.	.....do.....	.....do.....	Elementary schools.	1 year.	May be renewed for 1 or 3 years at direction of the board of examiners.				(a) Issued to graduates of first-grade high schools who in addition have completed a 1-year professional course in any high school or normal-school approved by the superintendent of public instruction. (b) May be issued on completion of 1-year normal course in any high school or normal school approved by the State superintendent of public instruction until 1922. From 1922 to 1924 applicant must have a minimum of 2 years of high school work as a prerequisite to entrance to normal course. Discontinued from 1924.
Emergency certificate.	.....do.....	.....do.....	Specified school.	.....do.....					Issued with the approval of the superintendent of public instruction to applicants who have had 1 year's experience in teaching in the public schools. Issued only when there is a shortage of teachers.

## OKLAHOMA.

State life certificate.	State board of education.	State.....	All schools....	Life.....	.....	.....	.....	.....	Issued to graduates of a full 2-year course in the Oklahoma State normal schools when the diploma is signed by the State superintendent, or to graduates of colleges in Oklahoma which have a normal department or courses equivalent to that provided in the State normal schools and is approved by the State board of education.
Special certificates: Music, domestic science, agriculture, art, manual training, expression, and commercial branches.	.....do.....	.....do.....	Special subjects only.	.....	.....	.....	.....	.....	Applicant must have had 4 years of college training with special attention to the subject upon which the certificate is issued.
Five-year elementary certificate.	.....do.....	.....do.....	Below the 9th grade.	5 years.....	Renewable.....	Amount not stated.	.....	.....	Applicant must have successful experience in teaching and complete certain branches in some one of the State institutions.
Five-year high-school certificate.	.....do.....	.....do.....	High school.	.....do.....	.....do.....	.....do.....	.....	.....	Applicant must have successful experience in teaching and complete certain branches in the University of Oklahoma.
First-grade county certificate.	County board of examiners or State board of examiners.	In county in which issued and may be endorsed in any other county.	All schools.....	4 years.....	(1)	12 months.....	Superintendent of public instruction.	County board of examiners or State board of examiners.	Applicants must be 20 years of age or over and attain an average of 90 with no branch below 75 in the following subjects: Algebra, physics, American literature, arithmetic, composition, civics, elementary psychology, English grammar, geography, Oklahoma history and government, orthography, physiology and hygiene, reading, theory and practice of teaching, United States history, writing and the elements of agriculture, domestic science, music, and general history.

<sup>1</sup> May be renewed for term for which issued by county superintendent if applicant attends institutes and summer schools as follows: 75 per cent of normal institutes or training courses held in county in which applicant has taught, or 50 per cent of teacher's associations held in county and 10 weeks, special training in a State normal school.

*State laws and regulations concerning teachers' certificates—Continued.*  
**OKLAHOMA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Two-year certificates.	State university and the A. and M. colleges or normal schools of Oklahoma.	State.....	All schools.....	2 years.....					Completion of a minimum of 4 years' work above the 8th grade and in addition applicant must have attended 1 full year of any of the institutions named in column 2 and have completed courses in agriculture, psychology, pedagogy, methods, and management.
Second-grade county certificate.	County board of examiners.	County in which issued and may be indorsed in adjoining county.	.....do.....	.....do.....	See first-grade county certificate.	6 months.....	.....do.....	County board of examiners.	Issued to applicants who attain an average of 80 per cent with in branch below 65 per cent in the subjects enumerated for a first-grade certificate, with the exception of algebra, physics, and general history.
Special certificate (to teach certain branches).	State board of education.	State.....	.....do.....	.....do.....	Renewable.....				Applicant must have successful experience in teaching and complete certain branches in the University of Oklahoma.
Normal school and college 1-year certificates.	State university and the A. and M. colleges or normal schools of Oklahoma.	.....do.....	.....do.....	1 year.....	Not renewable				Applicant must have completed a minimum of 2 years of high-school work and in addition have completed courses in penmanship, music, drawing, 1 year's work in science and 1 year's work in education, and must have attended 2 terms of 12 weeks each in the institutions marked in column 2.
Teacher's training course certificate.	Certain high schools of the State.	.....do.....	.....do.....	.....do.....	.....do.....				Graduation from the teacher training course given in certain high schools of the State. The course is arranged by State board of education and includes "course in education along the lines which will best qualify the individual for the teaching profession."



Third-grade county certificate.	County board of education.	County in which issued.	do.	do.	Same as for first and second grade county certificates.	State superintendent of public instruction.	County board of examiners.	Issued to applicants who attain an average of 75 per cent with no branch below 60 per cent in the same subjects enumerated for second-grade certificates except American literature and psychology. Applicant must have 1 year of college work above a 4-year high-school course. Applicant must have 2 years of college work above a 4-year high-school course.
Temporary elementary.	State board of education.	State.	Below the 9th grade.	1 year.	Renewable.			
Temporary high school.	do.	do.	High school.	do.	do.			

NOTE.—For first, second, and third grade county certificates:

1. In addition to the above requirements, applicants for a first-grade certificate must have the equivalent of at least 3 years of an approved high school or 36 weeks' professional training in an Oklahoma State normal school or the equivalent.
2. Applicants for second-grade certificates must have at least 2 years of academic training in an approved high school or 20 weeks' professional training in schools as provided for under first-grade provisions.
3. Applicants for third-grade certificates must have at least one year academic training in an approved high school or 10 weeks of professional training in the schools as prescribed under certificates of first grade.

### OREGON.

Life State certificate.	State superintendent of public instruction.	State.	All schools.	Life.	60 months, 15 in the State.	State board of examiners.	State board of examiners.	(a) Examination with a general average of not less than 85 per cent and no branch less than 70 per cent in the following subjects: Arithmetic, writing, orthography, reading, physiology, school law, civil government, grammar, geography, theory and practice of teaching, United States history, psychology, American literature, English literature, algebra, physical geography, book-keeping, plane geometry, botany, physics, composition, general book-keeping, geology, history of education. (b) Issued also to holders of State 5-year certificate who pass satisfactory examination in geometry, botany, physics, book-keeping, general history, geology, history of education, and English literature.

*State laws and regulations concerning teachers' certificates—Continued.*

## OREGON—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Five-year State certificate.	State superintendent of public instruction.	State.	In elementary grades and in 1-year, 2-year and 3-year high schools.	5 years.	Renewable for attendance of 32 weeks at an institution of higher education.	12 months.	State board of examiners.	State board of examiners.	Applicant must have a general average of not less than 85 per cent, with no branch below 70 per cent in the following subjects: Orthography, arithmetic, physiology, grammar, geography, theory and practice of teaching, reading, United States history, civil government, school law, psychology, American literature, algebra, physical geography, composition, writing.
Primary 5-year certificate.	do.	do.	First, second, and third grades.	do.	Renewable for attendance of 36 weeks at an institution of higher education or 32 months successful experience.	do.	do.	do.	Applicant must pass examination with a general average of not less than 85 per cent and not fall below 70 per cent in any of the following subjects: Methods in reading, methods in arithmetic, methods in language, methods in geography, theory and practice of teaching, writing, orthography, physiology, psychology, and in addition applicant must submit an educational thesis on a subject given by the State superintendent.
Certificates on graduation from standard college or university.	do.	do.	In high schools	1 year.					Graduation from standard college or university. (List of standard colleges and universities furnished by the superintendent of public instruction.)



## State laws and regulations concerning teachers' certificates—Continued.

## OREGON—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Nonstandard—Con. III.....	State superintendent of public instruction.	State.....	In high schools.	Life.....	.....	30 months in Oregon.	.....	.....	.....
One-year State certificate.	do.....	do.....	All.....	1 year.....	Renewable after 6 months' experience.	.....	do.....	do.....	Holders of above 5-year State certificate on recommendation of the county superintendent of the county in which applicant last taught. (a) Average of not less than 75 per cent, no branch below 60 in the following: Arithmetic, civil government, geography, grammar, history, orthography, physiology, reading, school law, theory and practice of teaching, writing. (b) Completion of teacher-training courses in accredited 4-year high school, including graduation from same. Applicant must show evidence of ability satisfactory to the State superintendent.
Special certificate: Library, music, agriculture, art, manual training, penmanship, kindergarten, domestic science, commercial subjects, physical education, languages.	do.....	do.....	Special subjects only.	Not stated.....	Not stated.....	.....	.....	.....	Applicant must be holder of certificate valid in another county and have satisfactory experience. Only one such certificate issued to any one applicant within a period of 3 years.
Temporary county certificate.	County superintendent.	County.....	All schools.....	Until next regular examination.	.....	.....	.....	.....	.....

NOTE.—No certificate to teach in any elementary school shall be issued to any person unless he has completed an elementary teachers' training course or its equivalent—equivalency determined by State superintendent of public instruction.

## PENNSYLVANIA.

Permanent State certificate.	Superintendent of public instruction.	State.....	Branches named.	Life.....	4 school terms (2 years or more on provisional certificate and 2 years or more on professional certificate).	Examining board. Special branches by department of public instruction.	Examining board. Special branches by department of public instruction.	Holder of a professional certificate for 2 or more years, and certificates of successful teaching during 2 school terms from proper superintendents and boards of school directors: proof of careful reading of at least 4 books of pedagogy approved by the State superintendent; and examination in all the branches enumerated under requirements for professional and provisional certificates.
College certificates: Permanent.....	.....do.....	.....do.....	.....do.....	.....do.....	3 years in State.	None required.	None required.	Graduation from a college or university approved by the College and University Council of Pennsylvania, and of approved departments therein.
Provisional.....	.....do.....	.....do.....	.....do.....	3 annual school terms.	None.	.....do.....	.....do.....	Same as for permanent college certificate on evidence of applicant's having completed during his college or university course not less than 200 hours work in pedagogical studies such as psychology, ethics, logic, history of education, school management, and methods of teaching.
State normal school diploma. <sup>1</sup>	State normal school.	.....do.....	.....do.....	Life.	2 school terms in State.	.....do.....	.....do.....	Applicant must have a diploma issued by a State normal school of Pennsylvania.
State normal school certificate. <sup>1</sup>	.....do.....	.....do.....	.....do.....	2 annual school terms.	None.	.....do.....	.....do.....	Applicant must have a certificate from a State normal school of Pennsylvania.
Special certificates: Kindergarten, drawing, vocal music, manual training, physical training, etc.	.....do.....	.....do.....	.....do.....	Term of years and of life.	.....do.....	.....do.....	.....do.....	Graduation from an approved special school of such subjects, under such conditions as State superintendent may impose.

<sup>1</sup> Diplomas are issued by Pennsylvania State normal schools to graduates who have 2 years of teaching experience. Certificates are issued to graduates without experience.

*State laws and regulations concerning teachers' certificates—Continued.*

**PENNSYLVANIA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements
		Territory.	Schools.				Prepared by—	Examined by—	
Professional certificate.	County or district superintendent.	County or district. (In districts available by other county or district superintendent's in second or third class.)	<b>R a n c h e s</b> <b>n a m e d.</b>	3 years.....	R e n e w a b l e upon exami- nation in any 2 of the additional branches re- quired for professional certificate. Must read 2 additional books on pedagogy approved by State super- intendent. Not renew- able more than 3 times.	2 full school terms.	County or dis- trict super- intendent.	County or dis- trict super- intendent.	Examination in all branches required for a provisional certificate and in addition any two of the following: Vocal music, drawing, English literature, plane geometry, general history, physical geography, elementary botany, elementary zoology, or elementary physics. Must satisfy said superintendent of intelligent reading of two of the books on pedagogy approved for such purposes by the State superintendent.
Provisional certificate.	.....do.....	County or district. (Nomin- d o r s a- b l e.)	.....do.....	1 year.....	May not teach more than 5 school terms on a provisional certificate.	None.....	.....do.....	.....do.....	Examination in spelling, reading, writing, physiology and hygiene, geography, grammar, arithmetic, elementary algebra, history of the United States and of Pennsylvania, civil government, including State and local government, school management, and methods of teaching.

**RHODE ISLAND.**

Superintendent's certificates: (1) First-grade permanent.	State.....	All schools as superintendent.	Permanent.....	10 years as superintendent.	Graduation from approved college or normal school.

First-grade tem po- rary.	.....do.....	.....do.....	.....do.....	5 years or until holder qual- ifies for per- manent first- grade certi- cate.	.....do.....	5 years as su- perintend- ent. <sup>1</sup>	.....do.....	.....do.....	Graduation from approved col- lege or normal school.
(2) Second- grade per- manent. Second- grade tem po- rary.	.....do.....	.....do.....	.....do.....	Permanent.	.....do.....	10 years as su- perintend- ent. <sup>1</sup>	.....do.....	.....do.....	Evidence of character and edu- cation satisfactory to the State board of education. Do.
(3) Third-grade tem po- rary.	.....do.....	.....do.....	.....do.....	5 years or until holder qual- ifies for per- manent sec- ond-grade certificate. 1 year.	.....do.....	Nonrenewable.	.....do.....	.....do.....	Satisfactory evidence of scho- lastic and professional qual- ification showing fitness for the service. Approval by the school committee employing applicant may be requested by the board. (a) Issued to graduates of ap- proved colleges or universi- ties who have completed 6 semester courses in educa- tion, including educational psychology, history of educa- tion, principles of education, school methods and manage- ment; or (b) examination prescribed by the State board of education. Issued to graduates of Rhode Island Normal School or any other approved State normal school maintaining a course of 3 years, including practice teaching. This course must be in addition to a standard 4-year high-school course. Issued to teachers of successful experience and to those who qualify by examination in the common-school subjects and school management, school methods, and school law.
First-grade certi- cate.	.....do.....	.....do.....	High schools.	3 years	.....do.....	Renewed for two periods of 6 years each for sat- isfactory service; per- manent on 15 years' ex- perience.	None.....	State board of education.	State board of education.
Second-grade cer- tificate.	.....do.....	.....do.....	Elementary schools.	2 years	.....do.....	Renewed for 4 years, then 9 years for sat- isfactory service; per- manent on 15 years' ex- perience.	.....do.....	.....do.....	.....do.....
Third-grade certi- cate.	.....do.....	.....do.....	All.....	.....do.....	.....do.....	Renewed for 4 years, there- after for 6- year periods for service proved suc- cessful.	.....do.....	State board of education.	State board of education.

<sup>1</sup> In lieu of five years' experience as superintendent special training for superintendence through professional courses in supervision and administration pursued for not less than 1 year at an approved college or normal school or 10 years' successful experience as a teacher may be accepted. No permanent certificate may be granted unless applicant has 5 years' experience as superintendent.

## State laws and regulations concerning teachers' certificates—Continued.

## RHODE ISLAND—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Fourth-grade certificate.	State board of education.	State	All schools as superintendent.	1 year	Nonrenewable and conditional.		State board of education.	State board of education.	Issued to those who pass a successful examination in the common-school subjects. Holder must qualify for higher certification within 2 years.
Special certificates: Music, penmanship, physical culture, book-keeping, or other subjects at discretion of State board.	do.	do.	High school in special subject only.	2 years		Satisfactory to State board.			Issued to applicants who present proof of special proficiency in the specific subject named in certificate and ability to instruct.
Temporary certificate.	do.	do.	High school	Until next examination.	Not renewable				(a) Issued to persons preparing to take the examination for first-grade certificate or (b) to those taking approved courses for which free scholarships are provided at Rhode Island Normal School or Brown University.
Special emergency certificate.	do.	do.	Elementary schools.	do.	do.	None.			Issued to high-school graduates who have completed a prescribed course at the summer session of the Rhode Island Normal School. This certificate may be granted after present emergency is passed.

Note.—Every applicant for first, second, or third grade certificate is required to pass examination in Rhode Island education, including history of Rhode Island education and Rhode Island school law.

## SOUTH CAROLINA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State certificate.	State superintendent.	State.	All schools.	10 years.	Not stated.	2 years.			Issued to holders of valid first-grade certificates who have the required experience and who have attended summer school during at least 3 consecutive years and have credits for completion of not fewer than 3 approved courses each year.



Do.....	State board of education.	do.....	5 years.....	May be re- newed for 5 years, and again for life on evidence of "Contin- ued success- ful profes- sional expe- rience."	(a) 5 years, (b) none, (c) 1 year.	.....	(a) Issued to applicants who present written testimony from the supervising principal or superintendent of boards of education that they have given effective service for at least 5 years, and who hold a first-grade county cer- tificate. (b) Issued to grad- uates of the special 2-year nor- mal course at the normal and industrial college. (c) Issued on completion of the 1-year course at the same institution to holders of first or second grade certificates. Issued on satisfactory evidence of fitness and preparation to teach through examination in designated high-school subjects.
Special 5-year high- school certificate.	do.....	do.....	High schools.....	Renewable on evidence of experience and profes- sional im- provement. do.....	do.....	State board of education.	State board of education.
Professional certifi- cate.	do.....	do.....	Primary and elementary.	do.....	do.....	do.....	do.....
Special certificates: Kindergarten, music, and in- dustrial subjects.	do.....	do.....	Special sub- ject.	Not specified. Discretion of State board.	do.....	do.....	do.....
County certificates: 1—First-grade. 2—Second-grade. 3—Third-grade.	County board of educa- tion.	County registra- tion in any oth- er coun- ty per- mitted.	All schools.....	First and sec- ond grade renewable at option of board if institutes attended; third-grade can not be renewed.	None.....	County board of educa- tion.	County board of educa- tion.
County certificates without exami- nation.	do.....	do.....	do.....	Optional.....	do.....	None.....	None.....
Teachers' normal diploma.	State board of education.	State.....	Life.....	do.....	do.....	do.....	Completion of 4-year normal course with degree of B. A.

## State laws and regulations concerning teachers' certificates—Continued.

## SOUTH DAKOTA.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Life professional diploma.	State superintendent.	State.....	All.....	Life.....		72 months, 36 of which is in South Dakota.			Issued to graduates of the State University of South Dakota or any other approved university on college of equivalent grade, provided that such course includes pedagogical studies and professional training comprising at least one-quarter work during at least 18 months.
Provisional diploma.	do.....	do.....		2 years.....		None.....			Same as for above. Issued at discretion of State superintendent for probationary period necessary for above certificate.
Life diploma.....	do.....	do.....	Elementary schools and first-year high school.	During good behavior.		(a) 40 months. (b) None.	State board of examiners.	State board of examiners.	(a) Applicant shall be examined or otherwise show satisfactory proficiency in the following branches: Reading, arithmetic, penmanship, orthography, grammar and composition, geography, United States history, South Dakota history, civics, physiology and hygiene, drawing and physical geography, and shall pass a satisfactory examination in the following subjects of pre college grade: Physics, algebra, geometry, general history, English and American literature, and in the following subjects of college grade: English language and rhetoric, pedagogy including principles, methods, management, psychology and history of education, either economics or sociology, and any two of the following: Botany, zoology, physics, physiology, chemistry, Latin,



*State laws and regulations concerning teachers' certificates—Continued.*  
**SOUTH DAKOTA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
First-grade certificate.	State superintendent.	Any county in State.	For any school in subjects named.	3 years.....	Renewable on successful teaching experience and attendance at county institute.	None.....	State board of examiners.	State board of examiners.	(a) Issued to applicants who pass a satisfactory examination in orthography, reading, writing, arithmetic, geography, English grammar, physiology and hygiene, history of the United States, civil government, current events, American literature, South Dakota history, drawing and didactics. (b) Issued to holders of a diploma from any State normal school or any school of South Dakota having a normal department and approved by the State superintendent of public instruction, and a course of study in which at least 2 years' work beyond the first 2 years of an approved 4-year high school course is required, which course includes professional instruction and practice in teaching equal to 1 class-hour daily for 2 years.
Second-grade certificate.	---do.---	County in which examination is held or may be held by county superintendent of other counties.	All grades below the high school.	2 years.....	Not renewable.	do.....	do.....	do.....	(a) Issued to applicants who pass a satisfactory examination in orthography, reading, writing, arithmetic, physiology and hygiene, geography, English grammar, history of the United States, civil government, South Dakota history, didactics and drawing. (b) Issued to holders of a diploma from any State normal school or any school having a normal department approved by the superintendent of public instruction and a course of

study in which at least 2 years' work beyond the approved 8th-grade course in the public schools of South Dakota is requested. Such course must include professional instruction and practice in teaching equal to 1 hour a week for 2 years.

**NOTE:** After the first of September, 1929, every applicant for second-grade certification by examination or otherwise must have attended an approved normal school 6 weeks in the aggregate, except that 2 years' satisfactory evidence of 2 years' successful experience may be accepted in lieu of such attendance. (c) Issued to holders of a diploma from an accredited 4-year high school maintaining a normal department approved by the superintendent of public instruction, and a course of study which includes professional instruction in principles of education, school management, and practice in teaching.

a) Issued at the discretion of the State superintendent of public instruction to candidates who have failed in their examination to measure up to the requirements for a second-grade certificate. Not more than 2 can be issued to any one person. **Note:** After the first of September, 1920, every applicant for third-grade certificate must have attended an approved normal school or normal department 6 weeks in the aggregate, or have had 2 years' experience as a teacher.

[illegible]

<sup>2</sup> After the first day of September, 1920, every applicant for first-grade certificate by examination or otherwise must present evidence of having attended an approved normal school or other school approved by the superintendent of public instruction 12 weeks in the aggregate, except that satisfactory evidence of three years' experience in educational work may be accepted in lieu of such attendance.

4 The county superintendent marks applicant on professional requirements, skill in teaching, and moral character.

*State laws and regulations concerning teachers' certificates—Continued.*  
**SOUTH DAKOTA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Primary certificate.	State superintendent.	In county in which issued in cities and towns. May be made valid in any other county by endorsement of county superintendent.	Kindergarten, first and second grades in cities and towns.	5 years.	Renewable on successful teaching experience and continued professional spirit.	.....	State board of examiners.	State board of examiners.	Examination in reading, writing, orthography, arithmetic, physiology and hygiene, geography, English grammar, history of the United States and South Dakota, drawing, didactics, and questions in kindergarten and primary methods. Note: After September 1920, applicants must have attended 18 weeks in an approved normal school, or have 5 years' successful experience as prerequisite for a primary certificate.
Vocational certificate: Manual training, domestic science, agriculture, music, drawing, commercial subjects, penmanship, kindergarten, mother's art.	.....do.....	State.	Any school in subjects named.	.....do.....	.....do.....	.....	State board of examiners.	.....do.....	(a) Applicant must show proficiency in all the subjects required for the State certificate except current events and American literature, and in addition must show proficiency in the particular vocational subject or subjects for which certificate is desired. (b) This certificate is granted to graduates of standard institutions specializing in the subject or subjects to teach which a certificate is desired. The course of study must cover at least 2 years (36 weeks each) of work beyond the 4-year high school course, and include at least 15 semester hours in professional training.

## TENNESSEE.

First-grade high school certificate.	State superintendent.	State.....	High schools.	5 years.	May be renewed indefinitely during successful experience or made permanent.	8 months.	State board of examiners.	State board of examiners.	Applicants must pass examination with an average of 85 per cent and no branch below 70 per cent. Applicant may select from six groups of high school subjects, as follows: I. The English group—Spelling, English grammar and composition, rhetoric, English and American literature. II. The mathematics group—Spelling, English grammar and composition, arithmetic, algebra, plane and solid geometry. III. History group—Spelling, English grammar and composition, English, American, and Tennessee history, civil government. IV. The Latin group—Spelling, English grammar and composition, first year, and Caesar, Cicero, and Virgil. V. The science group—Spelling, English grammar and composition, biology, chemistry, physiology, physics, physical geography, agriculture. VI. Home, economics group—Spelling, English grammar and composition, cooking, sewing, household sanitation. Issued to graduates of the State university or other approved institutions who have completed a minimum of 6 half-year courses in professional subjects.
Professional high school certificate.	do.	do.	do.	do.	Renewable indefinitely during teaching.	None.			Issued upon completion of the normal school course of the State normal schools (2 years above high school).
Professional certificate.	do.	do.	All schools except high schools of the first class.	do.	do.	do.			Issued upon the completion of the academic course in the State normal school.
Professional elementary certificate of the first grade.	do.	do.	Elementary schools.	do.	do.	do.			

## State laws and regulations concerning teachers' certificates—Continued.

## TENNESSEE—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
First-grade elementary certificate.	State superintendent.	State.	Elementary schools.	5 years.	Renewable requirements prescribed by State board of education.	8 months.	State board of examiners.	State board of examiners.	Applicants must attain an average of 80 per cent with no branch below 70 per cent in all of the following subjects: Orthography, reading, writing, grammar, history of the United States, geography, arithmetic, physiology, reading circle books. Issued to applicants who failed to make the required average or have required experience for first-grade certificate.
Second-grade high school certificate.	do.	do.	do.	2 years.	Renewable on satisfactory work in 3 courses in summer schools approved by the State board of education.	None.	do.	do.	Examination in same subjects as for first-grade certificate.
Second-grade elementary certificate.	do.	do.	do.	do.	do.	do.	do.	do.	Issued in case of emergency. Not more than two certificates shall be issued to the same person.
Temporary certificate.	do.	In county in which issued.	do.	Until next examination.	do.	do.	do.	do.	

## TEXAS.

Permanent State certificate: (1) Without examination.	State superintendent.	State.	Any.	Life, or during good behavior.		None, or 3 years in State.	No examination required.	No examination required.	(a) Holder of bachelor's degree from college or university of "first class," who has completed 4 full courses in education and pedagogy. Those who can not meet the last
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condition may present in lieu thereof 3 years' successful experience in Texas. (b) Holder of University of Texas teacher's diploma showing completion of 4 full courses in department of education, and satisfying the requirements for degree of bachelor of arts. (c) Holder of a diploma from the Peabody College for Teachers at Nashville, Tenn. (d) Holder of a valid first-grade certificate issued to those completing the necessary requirements at the College of Industrial Arts (see first-grade certificate), and 3 years' successful experience in Texas.

(a) Examination in the subjects required for a first-grade certificate, and, in addition, history of education, English and American literature, chemistry, solid geometry, physics, plane trigonometry, and elementary double-entry bookkeeping. Minimum average, 85 per cent; minimum grade, 80 per cent. (b) Holder of a State permanent primary certificate who during the first 6 years of its validity shall pass the required examination in the following additional subjects: Algebra, physics, elementary geometry, general history, chemistry, solid geometry, plane trigonometry, and elementary double-entry bookkeeping. (c) Holder of a valid first-grade certificate and examination in the required additional subjects under (b) above. A diploma from a Texas State normal college shall rank as a permanent State certificate.

(2) Upon examination.	do.	do.	do.	do.	None.	State department of education.	State board of examiners.
Texas State Normal College diploma.	do.	do.	do.	do.	do.	No examination required.	No examination required.

## State laws and regulations concerning teachers' certificates—Continued.

## TEXAS—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
State permanent primary certificate.	State superintendent.	State.....	All grades below the high schools.	Life or during good behavior.	May build to permanent State certificate during first 6 years.	None, or 3 years in State.	State department of education.	State board of examiners.	(a) Examination in subjects required for a second-grade certificate, and in addition, civil government, English composition, physical geography, history of education, elementary psychology applied to teaching, and English and American literature. (b) Holder of a valid first-grade certificate, and examination in the following additional subjects: History of education, elementary psychology applied to teaching, and English and American literature. Minimum average, 85 per cent; minimum grade, 50 per cent. (c) Holder of a valid second-grade certificate and examination in the required additional subjects making the required grade.
State kindergarten certificate: (1) Permanent.	.....do.....do.....	.....do.....	Kindergarten.	.....do.....	.....do.....	3 years' successful experience in kindergartens of State.	No examination required.	No examination required.	Holder of a valid temporary State kindergarten certificate after 3 years' experience.
(2) Temporary.	.....do.....do.....	.....do.....	.....do.....	2 years	.....do.....	None.....	.....do.....	.....do.....	(a) Graduation from regular course of a State educational institution in Texas maintaining a department for training kindergarten teachers and completion of the kindergarten course, consisting of not less than 2 years'

training with daily practice in the kindergarten. (b) Graduation from kindergarten training schools and departments approved by the State superintendent of public instruction.

Completion of 2 years' work in a Texas State normal college.  
Completion of 1 year's work in a Texas State normal college.

(a) Examination in all subjects required for a second-grade certificate, and, in addition, in English, composition, civil government, algebra, physical geography, elements of geometry, and general history. Minimum average of 85 per cent and no grade of less than 50 per cent render certificate valid for 6 years; minimum average of 75 per cent and no grade of less than 50 per cent render certificate valid for 4 years. (b) Holder of a valid second-grade certificate and examination in the prescribed additional subjects.

Completion of regular course for graduation in the college of industrial arts, and, in addition, two full courses in education.

Completion of four full courses in the college of arts, and one full course in the department of education in the University of Texas or in any university or college ranked as "first class" by the State superintendent upon recommendation of State board of examiners.

Texas State Normal College certificate: (1) First grade	State board of education.	Any	6 and 7 years.	May build to permanent State or permanent primary State certificate.	State department of education.	State board of examiners.
	(2) Second grade.	Any grade below the high school.	4 years			
First-grade State certificate: (1) Upon examination.	State superintendent.	Any	4 or 6 years.			
(2) Without examination.	do.	do.	6 years.		No examination required.	No examination required.
First-grade State certificate without examination.	do.	do.	2 years.			

*State laws and regulations concerning teachers' certificates—Continued.*  
**TEXAS—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Second-grade State certificate.	State superintendent.	State.....	Grades below the high school.	6 years or 4 years (see last column).	May build to first grade or permanent primary certificate.	None.....	State department of education.	State board of examiners.	Examination in spelling, reading, writing, arithmetic, English grammar, geography, Texas history, elementary physiology and hygiene, with special reference to nat- codes, school management, and methods of teaching, United States history, and elementary agriculture. Minimum average of 85 per cent, and no grade less than 60 per cent render certificate valid for 6 years; minimum average of 75 per cent, and no grade less than 50 per cent render certificate valid for 4 years. Do.
Second-grade county certificate.	County board of examiners.	County.....	do.....	do.....	Only 1 to same individual.	do.....	do.....	do.....	Do.
Permanent (high school, first-grade primary).	City board of examiners.	City.....	As board of trustees desires.	During good behavior.	Varies.....	3 years in Texas.	City board of examiners.	City board of examiners.	Requirements can not be lower than those prescribed by law for permanent State or county certificates of corresponding grade. Same, except omit "permanent."
Temporary (high school, first grade, second grade).	do.....	do.....	do.....	Not more than 4 years.	As determined by board of trustees, based upon reading, attendance upon city institutes, or other means of professional growth.	None.....	do.....	do.....	

NOTE.—Texas State normal colleges give courses of 1 year, 2 years, and 4 years' duration above 4-year high school.

## UTAH.

Diploma in school administration.	State board of education.	State.....	All schools.....	Life.....	5 years in administration or supervision, 2 in Utah.	Issued to graduates of standard college courses or the equivalent. College course must show 36 semester hours in education, including courses in educational administration, supervision of instruction, science of education, secondary education, training, school hygiene and sanitation, and psychology. (Holders of Utah high school diplomas who have had 5 years of successful experience in Utah as superintendents of schools may be permitted to substitute other work for the prescribed subjects mentioned.)
Certificate in school administration.	do.....	do.....	do.....	5 years.....		Issued to applicants who have graduated from standard college courses and who have done the professional work required for the diploma in school administration.
Do.....	do.....	do.....	do.....	2 years.....		Issued to applicants who have been eminently successful as superintendents of schools in Utah, but who can not qualify for a diploma.
Diploma in supervision of health work, primary grades, grammar grades and special subjects.	do.....	do.....	do.....	Life.....	5 years in supervision, 2 in Utah.	Issued to graduates of standard college courses or the equivalent. College course must include work in education required for a teacher's diploma and courses in supervision of instruction and in the pedagogy of the special grades or subjects which the diploma covers. (For a diploma in health supervision the applicant must have completed satisfactory courses in anatomy, physiology, personal hygiene, dietetics, gymnastics, public health, sanitation, heating and ventilation, bacteriology, physiological chemistry, kinesiology, physical diagnosis, and therapeutics.)

State laws and regulations concerning teachers' certificates—Continued.  
UTAH—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Certificate in supervision.	State board of education.	State	All schools.	5 years.					Issued to applicants who have graduated from standard college courses and who have done the professional work required for the diploma in supervision.
Do.	do.	do.	do.	2 years.					Issued to applicants who have completed 2 years of college work or its equivalent.
Special certificate in school nursing.	do.	do.	do.	1 year.					Issued to applicants who have completed a 2-year course in school nursing or its equivalent.
Diploma of high school grade.	do.	do.	do.	Life.		5 years; 2 in Utah.			Issued to graduates of standard college courses or the equivalent. College course must show 1 year of professional work, including 3 hours in psychology and at least 18 additional hours in educational subjects. (Issued to applicants who hold a diploma of grammar grade and have in addition completed 60 hours of approved college work.)
Professional high school certificate.	do.	do.	do.	5 years.					Issued to applicants who have graduated from standard college courses and who have done the professional work required for the diploma of high school grade.
Temporary high school certificate.	do.	do.	do.	1 year.	5 additional semester hours in education for each renewal.	1 year.			Issued to applicants who have graduated from standard college courses and who have completed at least 12 semester hours in education for the first certificate.
Junior high school certificate.	do.	do.	Elementary and junior high school.	do.					Issued to applicants who have completed 3 years of standard college or normal school work or its equivalent above the high school, including the educational subjects required for a high school diploma.

Diploma of grammar grade.	.....do.....	.....do.....	Elementary	Life.....	.....	5 years; 2 in Utah.	.....	.....	Issued to applicants who have completed 2 years of approved normal school or college work in addition to 4 years of high school, including at least 18 hours in educational subjects. (If applicants have taught 5 years in Utah the total requirement is 48 semester hours of college or normal work with 18 in education.)
First-class certificate.	.....do.....	.....do.....	.....do.....	5 years.....	Not renewable but may be extended upon 5 semester hours of college work.	2 years.....	.....	.....	Issued to applicants who have completed in addition to 4 years of high school 36 semester hours of normal or college work, including psychology, principles of education and 1 educational subject, a total of 9 semester hours in education. (The requirement after 5 years of experience in Utah is 24 semester hours with 9 in education.)
Second-class certificate.	.....do.....	.....do.....	.....do.....	2 years.....	Not renewable; holder is expected to complete work required for first-class certificate by expiration of second-class certificate.	.....	State board of education.	State board of education.	2-year normal courses. Issued to applicants who have completed a high school course and 1 year of normal or college work, including English composition, principles of education, psychology, training, reviews of common branches, and health education. (If the applicant has completed a year of college work not including the required subjects, and has not taken the State examinations, he will be required to pass examination in such subjects as the State department of education may prescribe after considering the applicant's credentials.) (b) Issued to applicants who have completed 18 semester hours of college or normal work in addition to a high school course and have taught in Utah on regular certificates at least 3 years.

*State laws and regulations concerning teachers' certificates—Continued.*  
**UTAH—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Third-class certificate.	State board of education.	State	All schools	1 year	Renewable upon 5 semester hours of approved college work until requirements for second-class certificate are met.	1 year	State board of education.	State board of education.	Issued to graduates of a high school course who completed 5 semester hours of approved college work and pass the State examinations.
High school diploma in a special subject.	do.	do.	All schools in subject named.	Life		5 years in special subject; 2 in Utah.			Issued to graduates of standard college courses or the equivalent. College course must show courses in principles of education, educational psychology, and the pedagogy of the subject in which the diploma is granted.
Grammar grade diploma in a special subject.	do.	do.	Elementary	do		do.			Issued to applicants who have completed 2 years of college work or its equivalent, including the educational subjects prescribed for a high school diploma in a special subject.
Special certificate in art, music, military tactics, foreign language, domestic arts, carpentry, commercial subjects, and physical education.	do.	do.	In subject named on certificate.	1 year	Special certificates in art, music, or military tactics, renewable upon recommendation of superintendent. <sup>1</sup>				Issued to applicants who present evidence satisfactory to the State board of education that they have a high degree of special fitness to teach the subjects named on the certificate.

<sup>1</sup> Certificates in other subjects named renewable upon 5 semester hours of approved college work.





## State laws and regulations concerning teachers' certificates—Continued.

## VERMONT—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Qualification certificate.	State board of education.	In district in which issued.	All schools.	5 years from date of issue.	May be renewed twice on recommendation of the superintendent in whose district said person last taught.	(a) 30 weeks (b) 90 weeks (c) 30 weeks (d) 30 weeks			(d) Issued to graduates of colleges or universities of approved standing who have taught at least 30 weeks and who have shown skill in teaching and in the control of pupils. (e) Issued to nonresidents of the State who satisfy the commissioner of education that they have had education, special training, and teaching experience equivalent to the foregoing requirements.
Probationary certificates.	do	State.	do.	For school year in which issued.	do	(a) None. (b) None. (c) 30 weeks.			(a) Issued to graduates of teacher training courses, normal schools, colleges, or universities of approved standing. (b) Issued to persons who have had equivalent education and training. (c) Issued to persons who taught in the State at least 30 weeks prior to July 1, 1916, and who have shown skill in teaching and in the control of pupils. Granted to persons whose education, experience, and training are approved by the commissioner of education and on application of a superintendent in whose district a vacancy exists or is about to occur. Issued only when regularly certified teachers can not be secured
Permits.	do	In district in which issued.	do.	Not more than 12 weeks.					

NOTE.—State aid is granted as follows: 1. (a) \$1 per week for each teacher who holds a life certificate issued on or after July 1, 1910; (b) \$3 per week for each teacher who holds a qualification certificate or who is a graduate of a 2-year normal school course following at least 3 years in an approved high school; (c) \$2 per week for each teacher who holds a probationary certificate. 2. Special certificates for special subjects are issued under the same conditions as other certificates.

## VIRGINIA.

Collegiate professional certificate.	State board of education.	State.....	All schools when endorsed by division superintendent.	10 years.....	Renewable for similar period if the holder has read at least 5 books of the State reading course and has attended an approved summer school at least 30 days, with professional courses included, or in lieu of summer school attendance passed an examination on reading courses.	.....do.....	.....	.....	.....	(a) Issued to graduates of standard universities, normal schools, or colleges based on graduation from 4-year high-school course whose curriculum required at least 15 percent of professional work, including practice teaching. (b) Issued to holders of collegiate certificates who complete education, requiring professional training.
Normal professional certificate.	.....do.....	.....do.....	Elementary and first 2 years' high school if based on academic course of normal school.	.....do.....	.....do.....	.....do.....	.....	.....	.....	(a) Issued to graduates of a registered State normal school which requires at least 2 years of professional work based on completion of a standard 4-year high-school course, and limited to elementary grades. (b) Same as above, except that applicant must take the special training course for high-school teachers offered at State normal school, and certificate is good for elementary schools and 2 years' high school. Issued to applicants who have completed 1-year professional work at standard normal school, college, or university, based on graduation from 4-year high school or the equivalent in summer courses approved by the State board of education.
Elementary professional certificate.	.....do.....	.....do.....	Elementary.....	6 years.....	Renewable for 6 years on conditions given above.	.....do.....	.....	.....	.....	

## State laws and regulations concerning teachers' certificates—Continued.

## VIRGINIA—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Perseverance.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Collegiate certificate.	State board of education.	State . . . . .	All . . . . .	5 years . . . . .	Renewable for 10 years on conditions given above.	.....	.....	.....	(a) Graduation from standard institutions of college grade. Credits toward this certificate may be secured through completing required courses at approved summer schools. (b) Credit toward this certificate may be secured also by examination in required subjects after applicant has at least 2 years' training in advance of a 4-year high-school course.
First-grade certificate.	.....do.....	.....do.....	Elementary.....	.....do.....	Renewable for 5 years on conditions given above.	7 months.....	State department of public instruction.	State department of public instruction.	(a) Issued to graduates of 4 year high schools who attend a summer normal school for at least 2 terms of 6 weeks each. (b) Issued to graduates of certain 4-year normal training high schools whose courses are approved by the State board of education. (c) Issued to applicants at least 19 years of age who have academic training equivalent to at least 2 years of high-school work and who receive a grade of at least 85 per cent on examination. Subjects and credits allowed as follows: Form giving information about applicants and including an examination on theory and practice, 15 points; mathematics, 15 points; English grammar and composition and classics, 15 points; history, American, Virginia, and English, 15 points (5 points each); geography and

civics, 10 points (i.e., 5 points each); science, physical geography, general science and agriculture, 10 points; physiology and hygiene, 5 points; spelling, 5 points; primary met. ds., 5 points; drawing, 5 points.

(a) Graduation from standard 4-year high school and at least 6 weeks' professional work at approved summer normal school. (b) Issued to applicants who are at least 18 years of age and receive a grade of at least 75 per cent. The examination and credits are as follows: Form by applicant, including an examination on theory and practice, 15 points; arithmetic, 10; English grammar and composition, 10; history of U. S. and Virginia, 10 (5 points each); geography and civics, 10 (i.e., 5 points each); physiology and hygiene, 5; primary reading and methods in spelling, 10 (i.e., 5 points each); drawing, 5. Issued to applicants who show adequate preparation in the branches specified on certificate through credentials satisfactory to the State board of education or who satisfy other fixed requirements of the State board. Issued only when the supply of certificated teachers is exhausted.

Second-grade certificate.	.....do.....	.....do.....	2 years.	Renewable for 2 years on conditions given above and limited to one renewal.	.....do.....	.....do.....	.....do.....
Special certificates for high school subjects and agriculture, drawing, music, domestic arts, manual training.	.....do.....	.....do.....	Subject named	Renewable for 6 years on conditions given above.	.....do.....	.....do.....	.....do.....
Local permit.	.....do.....	Local, county, or division in which issued.	Elementary	1 year.	.....do.....	.....do.....	.....do.....

## WASHINGTON.

Life diploma.	Repts of authorized State institution.	State.	All schools.	Life.	2 years.	Same as for normal diploma.

## State laws and regulations concerning teachers' certificates—Continued.

## WASHINGTON—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Life certificate.....	State superintendent.	State.....	All schools.....	Life.....		45 months not less than 27 months of which shall be in this State.	State department of education.	State department of education.	Applicant must have the credits required for a first-grade elementary certificate and in addition pass an examination in the following: Algebra, plane geometry, biology, geology, English literature, physics, psychology, composition and general history and have completed 12 semester hours of professional study in an accredited institution of higher learning or pass an examination in such professional subjects as the State board may direct. (Note.—The State board of education may accept other subjects in lieu of any of the above mentioned upon request of the applicant. Grades of 85 per cent and above earned in an accredited institution may be accepted in lieu of examination in any subject.)
Normal diploma.....	Board of regents of University of Washington.	do.....	do.....	5 years.....	May be converted into life certificate after 24 months' experience. do.....				Graduation from the University of Washington, from course including 12 semester hours in the department of education.
Normal diploma.....	Regents of State College of Washington.	do.....	do.....	do.....	do.....				Graduation from the Washington State College, the course of which includes 12 semester hours in the department of education.

Normal school elementary diploma.	Board of trustees of State normal schools.	do.	Elementary schools.	do.	Renewable for like period or for life after 24 months of successful teaching experience.	do.	Applicant must have completed the 2-year elementary course in the State normal school.
Special normal school diploma.	do.	do.	( <sup>1</sup> ), ( <sup>2</sup> ), ( <sup>3</sup> )	do.	do.	do.	Applicant must have completed a 3-year advanced course in a State normal school.
Advanced special normal diploma (after 1920).	do.	do.	All schools.	do.	Renewable for like period or normal life diploma if applicant has 24 months of successful experience.	do.	Applicant must have completed a 4-year advanced course in the State normal school.
First-grade elementary certificate.	State superintendent.	do.	Elementary schools.	do.	May be renewed twice for attendance at professional schools.	9 months.	Applicant must have had at least 1 year professional training in an accredited institution of higher learning and shall have credits in the same subjects as for a second-grade elementary certificate and must also pass an examination in nature study, drawing, juvenile and general literature, agriculture, civics, physical geography, and music, providing that grades of 85 per cent and above earned in an accredited institution of higher learning, in which teachers for the elementary schools are trained, may be accepted by the State board of education in lieu of examination in such subjects. Prerequisite as for second-grade certificate.
Normal school elementary certificate.	Board of trustees of State normal schools.	do.	do.	2 years.	do.	do.	Applicant must have completed 1 year elementary course in a State normal school.

<sup>1</sup> Grades in which holder is best qualified to teach given on reverse side of diploma.

<sup>2</sup> As special teachers of manual training and home economics for small school systems in which there is less than a four-year high school course where a single special teacher in either of these special lines is employed for both elementary and high school work.

<sup>3</sup> As principals of nine-year school systems where the principal must teach and supervise both elementary and secondary work

<sup>4</sup> As departmental teachers in school systems where teachers instruct in one or more subjects of the seventh, eighth, and ninth grades.

## State laws and regulations concerning teachers' certificates—Continued.

## WASHINGTON—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Second-grade elementary school certificate.	State superintendent.	State.....	Elementary schools.	2 years.....	May be renewed twice for attendance at professional schools.		State department of education.	State department of education.	Examination in reading, grammar, penmanship, and punctuation, history of the United States, geography, arithmetic, physiology and hygiene, orthography, Washington State manual and in addition 9 weeks' professional training in an accredited institution in which elementary teachers are trained. As prerequisite for entrance to this examination graduation from a 4-year high school or its equivalent is required. Applicant must show by examination or otherwise satisfactory evidence of fitness to teach special subject.
Special certificate: Music, art, manual training, penmanship, domestic science, or other subjects authorized by the State board of education.	County or city superintendent.	City or county where issued.	Special subject named on certificate only.	As long as holder continues to teach in city or county where issued.	(See column 5)				(Note.—Certificates to teach in cities are granted by city boards of education. These boards adopt any rules and regulations for their own government and for the examination of teachers which they see fit, provided they are not inconsistent with the laws of the State or the rules of the State board of education.)



Temporary certifi- cate.	.....do.....	Territory under juris- diction of super- intendent who issued certifi- cate.	Grades speci- fied.	Until next ex- amination.	Nonrenewable and issued once only to same appli- cant.	(a) None. (b) 9 months. (c) 9 months. (d) None.	(a) Applicant who holds ac- credited paper including 12 semester hours professional work. (b) Nonresidents of the State with valid certificate in an- other State. (c) Applicant who has held certificate in the State. (d) Applicant with credit for one semester's work in higher institution if recommended by the president.
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## WEST VIRGINIA.

State life certifi- cates.	State superin- tendent.	State.....	All schools.....	Life.....	Renewable for 5-year peri- ods if holder is actively engaged in school work.	10 years.....	State superin- tendent.	State superin- tendent.	Issued to holders of first-grade certificates or the equivalent of the same who have shown superior ability or marked progress. (a) Issued to applicants who pass a satisfactory examina- tion in the following subjects designated by State board of education: School adminis- tration, school law and the State course of study, hy- giene and sanitation, psy- chology and method, soci- ology and five other subjects chosen by the applicants from the optional list sub- mitted for the high school certificate. Average not less than 85 per cent. No grade below 65 per cent; or (b) to graduates of the West Vir- ginia University, the State Normal School and other in- stitutions who have com- pleted courses of instruction that are equivalent to those recognized in the West Vir- ginia University and State Normal School. Applicants must have completed not less than 20 semester hours in ed- ucation at least 5 of which are in school supervision.
Supervisor's certifi- cate.	.....do.....	.....do.....	.....do.....	5 years.....		2 years on first- grade certifi- cate or equiv- alent experi- ence.			

*State laws and regulations concerning teachers' certificates—Continued.*  
**WEST VIRGINIA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
High school certificate.	State superintendent.	State . . . . .	All schools . . . . .	5 years . . . . .	Renewable for 5-year periods if holder is actively engaged in school work.	.....	State superintendent.	State superintendent.	(a) Issued to those who pass satisfactory examinations upon ten subjects, four of which are designated by the State board of education, the remaining six being chosen by the applicants from an optional list submitted by the board. For this certificate the four required subjects are: (1) Educational psychology and method, (2) history of education and school management, (3) rhetoric and composition, (4) literature—English and American. The remaining six subjects may be selected from the following: History—(1) American history and civics, (2) English history, (3) ancient and mediaeval history. Language—(1) Latin, through Virgil; (2) Greek, through Xenophon; (3) German, 2 years; (4) French, 2 years. Mathematics—(1) Algebra, (2) plane geometry, (3) solid geometry, (4) trigonometry. Science—(1) physics, chemistry, (3) physical geography and elementary geology, (4) botany, (5) agriculture, (6) zoology, (7) physiology, or (b) to graduates from the West Virginia University or other colleges and universities with an equivalent course, provided that applicant's course has included 25 semester hours of education in approved subjects.

Normal school certificates.	.....do.....	Elementary and high schools.	5 years.....	Normal school certificates. If renewed as such are subject to the same regulations as elementary certificates. (See renewal of elementary certificates.) Any normal school certificate may be changed into a supervisor's certificate.	.....do.....	.....do.....	.....do.....	Issued to graduates in the diploma course of the State normal school, of the West Virginia Collegiate Institute, or an equivalent course in any other institution approved by the State board.
Elementary certificates: First grade.....	.....do.....	All.....	do.....	Renewable once upon successful experience and recommendation of the county superintendent. Second renewal on recommendation of county superintendent and successful examination in 2 reading circle books. After that may be renewed for life. <sup>1</sup>	.....do.....	.....do.....	.....do.....	Issued to all applicants who attain a general average of 90 per cent with no subject below 75 per cent in the following subjects: Spelling, reading, writing, arithmetic, English grammar and language, physiology and hygiene, United States and West Virginia history, geography, civil government, theory and art of teaching and agriculture. <sup>2</sup>

<sup>1</sup> All certificates issued after July 1, 1922, of 5 years' duration or more may be renewed for successful experience and reading circle work or upon recommendation of the county superintendent.

<sup>2</sup> From July 1, 1922, to June 30, 1924, applicants for first-grade certificates must have at least 1 year of high-school work and 9 weeks of professional study as a prerequisite. From July 1, 1924, to June 30, 1926, applicants for first-grade certificates must have at least 2 years of high-school work and 18 weeks of professional study as a prerequisite. From July 1, 1926, to June 30, 1928, applicants for first-grade certificates must have at least 3 years of high-school work and 27 weeks of professional study as a prerequisite.

*State laws and regulations concerning teachers' certificates—Continued.*  
**WEST VIRGINIA—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Elementary certificates—Con. Second grade.	State superintendent.	State.	Elementary schools as teachers, but not principals.	3 years.	Not renewable.		State superintendent.	State superintendent.	Issued to applicants who attain a general average of 80 per cent with no branch below 68 per cent in same subjects as enumerated for first-grade certificate.
Third grade.	do.	do.	do.	1 year.	do.		do.	do.	Issued to all applicants who attain a general average of 70 per cent with no subject below 60 per cent in same subjects enumerated for first-grade certificate, provided that a third-grade certificate shall not be issued more than twice to the same person.
Short-course certificate.	do.	do.	Elementary schools as teachers, but not principals, and junior high school.	3 years.	Renewable for a 3-year period for successful experience as a teacher in an approved high or normal school.				Issued to those who have completed the short course in the State normal school and its branch, short course in the West Virginia College Institute, the normal training course in high schools approved by the State board, or an equivalent course in other schools approved by the State board.
Special certificates: Primary, kindergarten, music, drawing, physical training, home economics, manual training, agriculture. (Special certificates in other subjects may be added as the needs of the schools may require.)	do.	do.	Subjects specified.	do.	do.	For primary certificate 2 years' experience on first or second grade and grade certificate.			Issued on examination or completion of courses approved by the State board of education. The prescribed subjects for the primary certificates are elementary literature, child study, and school management, school hygiene and sanitation, primary reading, number work, nature study, and writing. The optional subjects are history for children, story telling, drawing, and music. Other special certificates are issued to

persons who pass a satisfactory examination upon the following: (1) The major subjects as indicated in the name of the certificate applied for, (2) educational psychology and method, (3) English grammar (same as for elementary certificate). In each case where the same subject appears on different certificates the same list of questions will be used.

Issued under such regulations as shall be prescribed by the board of education to persons who were unable to take the regular examination for reasons satisfactory to the State superintendent. Such certificate shall not be issued more than once to the same person.

## WISCONSIN.

(a) Applicant must have graduated from incorporated college, university, or normal school other than University of Wisconsin, a Wisconsin State normal school, or Stout Institute and must have completed a course equivalent to the corresponding course in the University of Wisconsin, Wisconsin Normal School, or Stout Institute, and must have included as much psychology and pedagogy as is required in Wisconsin institutions for a life certificate.

Emergency certificate.

.....do.....

In county designated.

.....do.....

Until June 30 following the issue of certificate.

Unlimited State certificate:

State superintendent on recommendation of the State board of examiners.

State.....

All.....

Life.....

2 years.....

## State laws and regulations concerning teachers' certificates—Continued.

## WISCONSIN—(Continued.)

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Unlimited State certificate—Con. (b).....	State superintendent.	State.....	All or to teach the subjects included in the license previously issued.	.....	.....	2 years.....	.....	.....	(b) Issued to holders of diplomas from the University of Wisconsin, Wisconsin State Normal School, or Stout Institute. (NOTE.—Applicants must present certified statements from the presidents of above institutions showing date of graduation and courses pursued. Diplomas issued by regents of State normal schools must show that graduates have passed satisfactory examination in prescribed courses.)
(c).....	Same as (a).....	do.....	Any public school or as principal of a free high school.	.....	.....	1 year.....	.....	.....	(c) Applicant must possess requisite scholarship in all the branches of study required for the limited State certificate and such others as the State board of examiners shall prescribe.
County superintendent's certificate.	State superintendent.	do.....	All.....	Life.....	.....	8 months in Wisconsin.	Board of examiners.	Board of examiners.	Applicant will be examined in the subjects prescribed for the limited State certificate, and in addition in school law and the supervision and management of district schools. Must also furnish thesis embodying an account of an original inspection and investigation of at least two county schools and two testimonials of character.

Limited State certificate: (a).....	Same as for (a) above.	Any public school but not as principal of a free high school having a 4-year course.	5 years.....	Not renewable				(a) Applicant must possess requisite scholarship in subjects required for a first-grade county certificate of the same grade and also in psychology and English literature, and such other subjects as the State board of examiners may prescribe. These certificates may be of the same grade as county certificates.
(b).....	do.....	do.....	1 year.....	Renewable for 1 year.	do.....	do.....	do.....	(b) Qualifications same as for unlimited State certificate (a as above) except that no experience is required.
(c) <sup>1</sup> .....	State superintendent.	do.....	do.....	do.....	do.....	do.....	do.....	(c) Graduation from elementary course in a normal school. Applicant must present certified statements from board of regents of said institution.
First-grade county certificate.	County superintendent.	Superintendent's district where issued. <sup>2</sup>	All.....	Renewable for 5 years after satisfactory experience and completion of required reading circle work or renewed on re-examination.	8 months.....	County superintendent.	County superintendent.	(a) Examination in all branches required for a second-grade certificate and in addition in English literature, modern history, theory and art of teaching, and elementary algebra, provided that the requirement as to experience shall not apply to persons who have completed the prescribed course for teachers of country schools in normal school, county training school, or a legally authorized teacher's training course of a high school. Superintendent may transfer standing of a second-grade certificate to a first-grade certificate under certain conditions. <sup>3</sup>

<sup>1</sup> Course no longer offered. Provisions in law only apply to those previously issued.

<sup>2</sup> No license or certificate to teach in any public school in Wisconsin is issued unless applicant has completed at least 2 years of standard high school work or its equivalent and in addition at least 1 year of instruction and training preparatory to the work of teaching. After September, 1923, no county licenses or certificates to teach in any public school in the State will be issued unless applicant has completed a full 4-year high school course or its equivalent and in addition at least 1 year of instruction and training preparatory to the work of teaching, provided that these restrictions shall not apply to any person who has had at least 2 years' experience in teaching in a public school, or who holds an unexpired license or teacher's certificate.

<sup>3</sup> The county superintendent may transfer to a first-grade certificate the standings of the second-grade certificate in force or within 1 year of its expiration if holder has taught successfully at least 8 months or has attended a professional school for teachers for at least 6 weeks and received credits in at least 2 subjects required for first-grade certificate. In addition, applicant must have completed all work required by State reading circle board. In the same way, grades may be transferred from the third to the second grade certificates, if applicant has attended a professional school and received credit and completed reading circle work as prescribed for first-grade certificates.

*State laws and regulations concerning teachers' certificates—Continued.*  
**WISCONSIN—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
First-grade county certificate.	County superintendent.	Superintendent's district where issued. <sup>2</sup>	All.....	5 years.....	Renewable for 5 years after satisfactory experience and completion of required reading circle work or renewed on re-examination. May be renewed after 2 years' successful experience if applicant attends professional school for teachers at least 6 weeks and receives credit in at least 2 required subjects or passes an examination in 2 subjects required for first-grade certificate and completes courses required by State reading circle board.	8 months. ....	County superintendent.	County superintendent.	(b) Holders of certificates of graduation from the course for teachers of country schools in State normal schools, county training schools, or authorized teacher training courses in high schools if standings are approved for first-grade certificate by county superintendent who issues certificate. <sup>4</sup>
Second-grade county certificate.	.....do.....	County in which issued.	.....do.....	3 years.....	May be renewed after 2 years' successful experience if applicant attends professional school for teachers at least 6 weeks and receives credit in at least 2 required subjects or passes an examination in 2 subjects required for first-grade certificate and completes courses required by State reading circle board.	.....do.....	.....do.....	.....do.....	(a) Examination in all the branches required for a third-grade certificate and in addition in general science and American literature, domestic science, and manual training, provided there requirement as to experience shall not apply to persons who have completed the prescribed course for teachers of country schools in a normal school, county training school, or a legally authorized teacher-training course in a high school. Standings may be transferred from third-grade to second-grade certificates under certain conditions. <sup>4</sup> (b) same as (b) under county first-grade certificates.



Special license for manual training, domestic science, or other subjects legally authorized.	State superintendent.	State.	Any school in which special subject for which issued.	1 year.	Renewable for 1 year.	None required.	Graduation from regular course in subject for which issued, as enumerated in column 1, from Stout Institute. Applicant must hold certified statement from president of said institute.
Special license in commercial subjects, agriculture, manual training, domestic science, kindergarten, and deaf.	do.	do.	Any school in the branches indicated. Kindergarten and first and second grades. Deaf in grades below high school.	do.	Renewable for 1 year after successful experience.		Issued to holders of certified statement from president of University of Wisconsin or of any State normal school or equivalent institution or course, which statement shows graduation from full normal school course in authorized subjects.
State license.	do.	do.	Any.	do.	do.		(a) Issued to holders of certified statement from the president of the University of Wisconsin. Applicant must be a graduate of the university and have completed the instruction in pedagogy prescribed by the university for those who intend to teach. Certified statement must also show date of graduation and course. (b) Holders of certified statement from the president of State normal schools showing that applicant has graduated from full course and setting forth name of person and course from which graduated.

\* Each county superintendent may establish standards of attainment in each branch to be taught by applicant before receiving certificates. The standards in the branches of study common to the third and second grade certificates shall be higher for the second than for the third grade, and standards in branches common to the second and first grade certificates shall be higher for the first grade than for the second. County superintendents may require additional subjects at their discretion. County superintendents may also accept standings obtained by completion of studies in the normal schools, county training schools, or teachers' training courses in high schools in lieu of examination, provided they are accepted within 5 years after such standings were recorded in said schools; county superintendents may also accept evidence of satisfactory reading of books included in the Wisconsin teachers' reading circle as substitute for examination in any required subject in which the applicant has passed previously a satisfactory examination for teachers' certificates.

State laws and regulations concerning teachers' certificates—Continued.

WISCONSIN—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Third-grade county certificate.	County superintendent.	County in which issued. <sup>4</sup>	Any.....	Not more than 1 year.	May be renewed if holder attends professional school for teachers for a period of at least 6 weeks and receives credit in at least 2 subjects required for a second-grade certificate or passes an examination in 2 such subjects. Applicant must also complete work prescribed by State reading circle board.	None required.	County superintendent.	County superintendent.	Examination in spelling, reading, penmanship, arithmetic, composition and grammar, geography, history of the United States and State of Wisconsin, civil government of the United States and the State of Wisconsin, physiology and hygiene, school management, manual of Wisconsin, elements of agriculture and rural economics, cataloging and use of school libraries. <sup>5</sup>
Special certificate.	do.....do.....	do.....do.....	do.....do.....	do.....do.....					Issued by county superintendent on examination in subjects required for third grade certificate. Issued only when supply of legally qualified teachers has been exhausted.

<sup>4</sup> (See footnote on p. 191.)

<sup>5</sup> It shall not be lawful for any superintendent to indorse a certificate issued by any other superintendent. However, if holders of certificates desire to teach in another county in the State, the superintendent of said county may request a transfer of applicant's papers, and if they are satisfactory may issue certificate on basis of same.

## WYOMING.

Administrative certificate:	State board of education.	State.	Principal of high school, superintendent of schools, grades 1-12, County superintendent.	Life.....	Renewed indefinitely or 3-year period.	3 years.....			
Class 1.....	do.....	do.....	Principal of high school, grades 9-12, Superintendent of school system, grades 10. County superintendent.	4 years.....	Renewed indefinitely or 3-year period.	2 years.....	Graduation from standard college with English 4 hours, major subject 26 hours, minor subject 14 hours, minor subject 10 hours, 20 hours in education, including school administration and supervision and at least 3 of the following: Educational psychology, principles of teaching, secondary education methods, practice teaching, history of education.	Graduation from standard college with English 4 hours, major subject 26 hours, minor subject 14 hours, minor subject 10 hours, 20 hours in education, including school administration and supervision and at least 2 of the following: Educational psychology, principles of teaching, methods, practice teaching or observation, secondary education.	
Class 2.....	do.....	do.....	Principal of high school, grades 9-12, Superintendent of school system, grades 10. County superintendent.	3 years.....	do.....	1 year.....	Graduation from a standard normal school or 2 years of college education with English 4 hours, major subject 12 hours, minor subject 8 hours, minor subject 6 hours, 10 hours in education, including school administration and supervision and at least 1 of the following: Educational psychology, principles of teaching, methods, practice teaching or observation, secondary education.	Graduation from a standard college with English 4 hours, major subject 26 hours, minor subject 14 hours, minor subject 10 hours, 16 hours in education, including at least 4 of the subjects listed under Class 3.	
Class 3.....	do.....	do.....	Principal of school grades, 1-10, and county superintendent.	Life.....	do.....	3 years.....	Graduation from a standard normal school or 2 years of college education with English 4 hours, major subject 12 hours, minor subject 8 hours, minor subject 6 hours, 10 hours in education, including school administration and supervision and at least 1 of the following: Educational psychology, principles of teaching, methods, practice teaching or observation, secondary education.	Graduation from a standard college with English 4 hours, major subject 26 hours, minor subject 14 hours, minor subject 10 hours, 16 hours in education, including at least 4 of the subjects listed under Class 3.	
High-school certificate.	do.....	do.....	Grades 7-12.....	Life.....	do.....	3 years.....	Graduation from a standard normal school or 2 years of college education with English 4 hours, major subject 12 hours, minor subject 8 hours, minor subject 6 hours, 10 hours in education, including school administration and supervision and at least 1 of the following: Educational psychology, principles of teaching, methods, practice teaching or observation, secondary education.	Graduation from a standard college with English 4 hours, major subject 26 hours, minor subject 14 hours, minor subject 10 hours, 16 hours in education, including at least 4 of the subjects listed under Class 3.	

## State laws and regulations concerning teachers' certificates—Continued.

## WYOMING—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
High-school certificate—Continued. Class 2.....	State board of education.	State .....	Grades 7-12.....	4 years.....	Renewed indefinitely for 3-year period.	2 years.....			Applicant must have 3 years of college or normal school work with English 4 hours, major subject 18 hours, minor subject 10 hours, minor subject 8 hours, 12 hours in education, including at least 3 of the subjects listed under Class 3.
Class 3.....	.....do.....	.....do.....	Grades 7, 8, 9, and 10.	3 years.....	.....do.....	1 year.....			Graduation from a standard normal school or 2 years in standard college course, must include English 4 hours, major subject 12 hours, minor subject 8 hours, minor subject 6 hours, 8 hours in education, including at least 2 of the following: Educational psychology, principles of teaching, methods, practice teaching or observation secondary education.
Elementary city school certificate: Professional class.	.....do.....	.....do.....	City elementary schools and rural schools under certain conditions, .....do.....	Life.....		3 years.....			Graduation from a 4-year high school and a diploma from a standard normal school representing at least 3 years of work above the high school.
Class A.....	.....do.....	.....do.....	.....do.....	3 years.....	May be renewed 3 times for 3-year period. Renewable twice for 2-year period.	2 years.....			Graduation from a 4-year high school and professional training equal to at least 30 semester hours.
Class B.....	.....do.....	.....do.....	.....do.....	2 years.....		None.....			Graduation from a 4-year high school and normal training equivalent to at least 15 semester hours.

Elementary city school certificate, upon examination: Class A.....	.....do.....	City elementary.	3 years.....	May be renewed 3 times for 3-year period.	2 years.....	Certification division of State department of education.	Certification division of State department of education.	Graduation from a 4-year high school and normal training of at least 15 semester hours are required as a prerequisite to examination. Applicant must pass in examination with an average of 80 per cent with no branch below 75 per cent in ability and competency to teach English classics for elementary grades, general science and community civics, elementary psychology, plays and playgrounds, hygiene of the school child.
Class B.....	.....do.....	.....do.....	2 years.....	May be renewed twice for 2-year period.	None.....	.....do.....	.....do.....	Completion of at least 3 years in a standard high school and 10 semester hours of normal training and examination with a general average of 80 per cent and a minimum grade of 70 per cent in orthography, reading, penmanship, arithmetic, language and grammar, geography and United States history, civics, physiology and hygiene, elementary agriculture, elementary music, elementary drawing, school management.
Rural school certificate: Class professional.....	.....do.....	Rural and elementary city schools.	Life.....		3 years.....	.....do.....	.....do.....	Graduation from a standard 4-year high school and a diploma from a standard normal school, representing 2 years of work above the high school; 15 semester hours, 5 of which shall be in rural education.
Class A.....	.....do.....	.....do.....	3 years.....	May be renewed 3 times for 3-year period.	.....do.....	.....do.....	.....do.....	Graduation from a 4-year high school and normal training equal to 30 semester hours, 10 of which shall be in rural education.

*State laws and regulations concerning teachers' certificates—Continued.*  
**WYOMING—Continued.**

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Rural school certificate—Cont'd. Class B.	State board of education.	State.	Rural and elementary city schools.	2 years.	May be renewed twice for 2-year period.	1 year.			Graduation from a 4-year high school and the equivalent of 15 semester hours in normal training, of which 5 shall be in the department of rural education.
Class C.	do.	do.	Rural schools.	1 year.	May be renewed once for 2-year period.	None.			Graduation from an accredited 4-year high school and normal training equal to 5 semester hours in the department of education in the University of Wyoming.
Class: Advanced State high school normal training department certificate.	do.	do.	do.	2 years.	May be renewed twice for 2-year periods.	do.			Graduation from a 4-year high school including 1 year normal training in accredited high schools.
State high school normal training department certificate.	do.	do.	do.	1 year.	May be renewed once for 2-year period.	do.			Applicant must have 3 years in a standard high school or hold a third-grade certificate and 1 year normal training in an accredited high school.
Rural school certificate by examination: Class A.	do.	do.	Rural and elementary city schools.	3 years.	May be renewed 3 times for 3-year periods.	2 years.			Graduation from a 4-year high school and 15 semester hours of normal training are required as a prerequisite for entrance to examination. Applicant must have a general average of 85 per cent with minimum of 75 per cent upon examination which shows ability and competency to teach English classics for elementary grades, general science and community civics, elementary psychology, play and playgrounds, hygiene of the school child.

Class B	.....do.....	.....do.....	2 years	May be renewed twice for 2-year periods.	1 year	Certification of division of State department of education.	Certification of division of State department of education.	Education equal to 3 years in high school and 10 semester hours in normal school are required as a prerequisite to entrance to examination. Applicant must pass with a general average of 80 per cent and a minimum grade of 70 per cent in elementary public school music, elementary drawing, and rural school management.
Class C	.....do.....	.....do.....	Rural schools.	1 year	May be renewed once for 2-year period.	None	.....do.....	Completion of 2 years in high school and 3 semester hours in normal school and examination with general average of 70 per cent and a minimum grade of 60 per cent in orthography, reading, language and grammar, penmanship, physiology and hygiene, history and civics, elementary agriculture, geography, arithmetic, methods in the elementary branches with special reference to rural schools.
Special certificate on credentials.	.....do.....	.....do.....	In special department mentioned on certificate.	Life		2 years	.....do.....	Graduation from a 4-year high school and graduation from a standard technical school with a 2-year course, or graduation from a standard college with major (special technical subject) 25 hours English 4 hours, also 6 hours in education. <sup>1</sup>

11 If applicant has no credit in education he may qualify by taking an examination and making a minimum grade of 80 per cent in principles of teaching.

## State laws and regulations concerning teachers' certificates—Continued.

## WYOMING—Continued.

Name of certificate.	Issued by—	Valid in—		Duration.	Persistence.	Experience required.	Questions.		Scholarship requirements.
		Territory.	Schools.				Prepared by—	Examined by—	
Special certificates upon examination: Agriculture, home economics, manual training, physical education, commercial branches, penmanship, music, primary, kindergarten, stenography, typewriting, foreign languages.	State board of education.	State. ....	In special department mentioned on certificate.	5 years. ....	Renewed indefinitely for 3-year periods.	2 years. ....	Certification of division of State department of education.	Certification of division of State department of education.	Graduation from a 4-year high school or its equivalent is required as a prerequisite for entrance to the examination. Applicant must have a minimum of 80 per cent on the special subject or group of subjects and principles of teaching.
Temporary certificate.	.....do.....	District for which issued.	All schools. ....	Until the next regular examination.	.....	.....	.....	.....	Granted to applicants who have been engaged to teach after the last regular examination and not issued to persons who do not possess the prerequisite of high school and normal or college education necessary to admit him to examination and such credentials as show his ability to pass examination.

NOTE.—Exemption certificates granted on the basis of credits from the State normal school of State University of Wyoming may be granted on credits from other normal schools and colleges of equivalent rank.



## INFORMATION CONCERNING HIGH-SCHOOL CERTIFICATES.

## STATES WHICH ISSUE SPECIAL HIGH-SCHOOL CERTIFICATES.

Colorado.	Maine.	Oklahoma.
Delaware.	Maryland.	Oregon.
Georgia.	Massachusetts.	Rhode Island.
Idaho.	Nebraska.	South Carolina.
Illinois.	Nevada.	Tennessee.
Indiana.	New Hampshire.	Utah.
Iowa (included in special subject certificates).	New Jersey.	Virginia.
Kentucky.	New Mexico.	West Virginia.
Louisiana.	North Carolina.	Wyoming.
	Ohio.	

## REQUIREMENTS FOR HIGH-SCHOOL CERTIFICATES.

<i>Issued on examination:</i>	<i>Issued for college work:</i>	<i>Issued for college work—Con.</i>
Connecticut.	Delaware.	New Jersey.
Georgia.	Idaho.	New Mexico.
Indiana.	Illinois.	North Carolina.
Louisiana.	Iowa. (4-year normal).	Ohio.
Maine.	Kentucky.	Oklahoma.
Nevada.	Maine.	Oregon.
North Carolina.	Maryland.	Rhode Island.
Rhode Island.	Massachusetts.	Tennessee.
South Carolina.	Nebraska.	Utah.
Tennessee.	Nevada.	West Virginia.
West Virginia.	New Hampshire.	Wyoming.

## SPECIAL TRAINING IN SUBJECTS TAUGHT.

Utah: High-school diploma in special subject. (Graduates of standard colleges or equivalent with special study in subject taught.)

Virginia: Special certificate for high-school subjects. (No college work required but must show adequate preparation in branches specified in certificates.)

Indiana requires examination in subjects taught in high school and in education.

New Jersey requires either examination in subjects to be taught or a prescribed number of credits in such subjects included in college course.

TABLE 4.—Summary of certificates issued by central, county, and local agencies.

States.	Grand total.	Central agencies.				County agencies.			Local agencies.
		Total.	Valid in—			Total.	Valid in—		
			State.	County.	Town or district.		County.	District.	
Alabama.....	6	6	6						
Arizona.....	6	6	6						
Arkansas.....	12	8	8			4	4		
California.....	12	4	4			18	8		
Colorado.....	9	5	5			3	3		1
Connecticut.....	10	8	8						2
Delaware.....	14	13	13			21	21		
Florida.....	14	14	13	1					
Georgia.....	14	5	5		1	9	9		
Idaho.....	9	6	6			3	3		
Illinois.....	10	3	3			7	7		
Indiana.....	31	25	25			6	6		
Iowa.....	11	11	11						
Kansas.....	15	12	12			3	3		
Kentucky.....	9	7	7			2	2		
Louisiana.....	4	4	4						
Maine.....	10	9	9						1
Maryland.....	11	11	11						
Massachusetts.....	6	5	5						1
Michigan.....	17	11	11			6	5	1	
Minnesota.....	10	10	10						
Mississippi.....	18	10	10			8	8		
Missouri.....	12	7	7			5	5		
Montana.....	15	15	14		1				
Nebraska.....	13	11	9		2	2	2		
Nevada.....	10	10	9		1				
New Hampshire.....	10	10	10						
New Jersey.....	30	20	20			25	25		25
New Mexico.....	7	7	7						
New York.....	15	10	9		1				15
North Carolina.....	15	15	15						
North Dakota.....	9	9	9						
Ohio.....	18	6	6			66	6		66
Oklahoma.....	14	11	10	1		3	3		
Oregon.....	15	14	14			21	21		
Pennsylvania.....	8	6	6			2	2		
Rhode Island.....	12	12	12						
South Carolina.....	10	6	6			4	4		
South Dakota.....	10	10	7	3					
Tennessee.....	8	8	7	1					
Texas.....	15	12	12			1	1		2
Utah.....	16	16	16						
Vermont.....	4	4	3		1				
Virginia.....	8	8	7	1					
Washington.....	14	10	10			42	42		42
West Virginia.....	10	10	9	1					
Wisconsin.....	16	12	12			4	4		
Wyoming.....	23	23	22		1				
United States.....	595	475	460	8	7	95	94	1	25

<sup>1</sup> District, village, or city, all classed as local here.<sup>2</sup> Temporary or special in name or significance.<sup>3</sup> There are 5 separate varieties of life certificates and 4 varieties of State certificates, and they are divided here because of certain characteristics tabulated.<sup>4</sup> Good in districts organized under Arts. XXII and VI, also one for all districts except cities of 1,000 population.<sup>5</sup> Issued by city and county authorities.<sup>6</sup> One certificate issued either by State or county board.<sup>7</sup> Districts of over 5,000 population may issue certificates under certain conditions.

TABLE 5.—*Certificates issued by central agencies that are valid throughout the State, distribution among the respective classes of schools, and duration of such certificates.*

States.	No.	Any school.		High school.		Elementary.		Primary and kindergartens.		School subjects named.	
		No.	Duration.	No.	Duration.	No.	Duration.	No.	Duration.	No.	Duration.
Alabama.....	6	6	L, 6, 6, 4, 2, T <sup>1</sup> .	.....	.....	.....	.....	.....	.....	.....	.....
Arkansas.....	7	6	L, 6, 6, 6, 6, 2.	.....	.....	.....	.....	.....	.....	1	T. <sup>2</sup>
Arizona.....	5	3	L, 4, 4.	.....	.....	1	2	.....	.....	1	4.
California.....	4	1	L.	.....	.....	1	L.	1	L.	1	L.
Colorado.....	5	5	L, 5, 5, 5, 5.	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut.....	8	5	1, 1, 1, 1, T.	.....	.....	1	1	1	1.	1	T. <sup>3</sup>
Delaware.....	13	3	3, 3, 3.	3	3, 3, 3.	5	3, 3, 3, 2, 2.	1	3.	1	3.
Florida.....	13	8	L, L, L, 5, 5, 5, 3, 1.	.....	.....	.....	.....	3	L, 4, 4.	2	5, 5.
Georgia.....	5	4	3, 3, T, T <sup>1</sup> .	.....	.....	.....	.....	.....	.....	1	3.
Idaho.....	6	2	L, 8.	3	L, 5, 1.	.....	.....	.....	.....	1	8.
Illinois.....	3	1	4.	1	4.	1	4.	.....	.....	.....	.....
Indiana.....	25	5	L, L, L, L, 8.	1	L.	6	L, 4, 3, 3, 2, 1.	6	3, 3, 2, 2, 1, 1.	7	4, 3, 3, 2, 2, 1, 1.
Iowa.....	11	9	5, 5, 5, 5, 5, 3, 2, 2, 1.	.....	.....	.....	.....	1	5.	1	3.
Kansas.....	12	5	L, L, 3, 3, 1.	.....	.....	4	L, 3, 3, 2.	.....	.....	3	L, 3, 1.
Kentucky.....	7	6	L, L, 8, 5, 2, 1.	1	T. <sup>3</sup> .	.....	.....	.....	.....	.....	.....
Louisiana.....	4	.....	.....	1	5.	3	5, 3, 1.	.....	.....	.....	.....
Maine.....	9	.....	.....	4	L, L, 5, 2.	4	L, L, 2, T. <sup>3</sup> .	.....	.....	1	2.
Maryland.....	11	1	3.	2	3, 3.	5	3, 3, 3, 2, 2.	.....	.....	3	3, 3, 2.
Massachusetts.....	5	2	L, 3.	3	L, 2, 2.	.....	.....	.....	.....	.....	.....
Michigan.....	11	7	L, L, L, L, L, 4, 3.	.....	.....	1	3.	1	L.	2	L, L.
Minnesota.....	10	4	5, 2, 1, T. <sup>3</sup> .	.....	.....	5	L, 5, 2, 2, 1.	.....	.....	1	1.
Mississippi.....	10	9	L, 5, 3, 3, 2, 2, 1, 1, 1.	.....	.....	.....	.....	.....	.....	1	T. <sup>3</sup>
Missouri.....	7	2	L, 5.	2	L, 2.	3	L, L, 2.	.....	.....	.....	.....
Montana.....	14	14	L, L, L, L, L, 6, 6, 6, 6, 4, 3, 2, 1, T.	.....	.....	.....	.....	.....	.....	.....	.....
Nebraska.....	9	1	L.	2	3, 3 <sup>4</sup> .	5	3, 3, 3, 3, 3.	.....	.....	1	3.
Nevada.....	9	.....	.....	3	L, 5, 4.	5	L, 5, 3, 2, T.	.....	.....	1	2.
New Hampshire.....	9	2	L, 3.	3	L, L, 1.	4	L, L, 1, 1.	.....	.....	.....	.....
New Jersey.....	22	2	L. <sup>2</sup> .	2	L, 1.	2	L, 1.	2	L, 1.	14	L, L, L, L, L, 3, 1, 1, 1, 1, 1, 1, 1, 1.
New Mexico.....	7	2	L, 5.	1	5.	3	3, 2, 1.	.....	.....	1	1.
New York.....	10	6	L, L, L, 5, 3, 2.	.....	.....	3	L, L, 1.	.....	.....	1	3.
North Carolina.....	15	3	L, 2, 2.	2	3, 3.	6	2, 2, 2, 2, 2, 2.	.....	.....	4	3, 3, 3, 2.
North Dakota.....	10	3	L, 5, 2.	.....	.....	6	5, 3, 3, 2, 2, 2.	.....	.....	1	T. <sup>3</sup>
Ohio.....	6	.....	.....	2	L, 4.	2	L, 4.	1	4.	1	4.
Oklahoma.....	10	5	L, 2, 2, 1, 1.	2	5, 1.	2	5, 1.	.....	.....	1	L.
Oregon.....	14	2	L, 1.	6	L, L, 5, 5, 1, 1.	4	L, 5, 5, 1.	1	5.	1	T. <sup>3</sup>
Pennsylvania.....	6	.....	.....	.....	.....	.....	.....	.....	.....	6	L, L, L, L, 3, 2.
Rhode Island.....	12	5	L, L, 5, 5, 1.	3	3, 2, T.	4	2, 2, 1, T.	.....	.....	.....	.....
South Carolina.....	5	3	10, 5, 5.	1	5.	.....	.....	.....	.....	1	5.
South Dakota.....	7	3	L, 3, 2.	.....	.....	3	L, 5, 2.	.....	.....	1	5.
Tennessee.....	8	1	5.	4	5, 5, 2, 1.	3	5, 5, 2.	.....	.....	.....	.....
Texas.....	12	7	L, L, L, 6, 6, 6, 4.	.....	.....	3	L, 6, 4.	2	L, 4.	.....	.....
Utah.....	16	8	L, L, L, 5, 5, 5, 1, 1.	.....	.....	6	L, L, 5, 2, 1, 1. <sup>3</sup>	.....	.....	2	L, 1.
Vermont.....	3	3	L, 5, 1.	.....	.....	.....	.....	.....	.....	.....	.....
Virginia.....	7	2	10, 5.	.....	.....	4	10, 6, 5, 2.	.....	.....	1	6.
Washington.....	10	6	L, L, 5, 5, 5, 5.	.....	.....	4	5, 5, 2, 2.	.....	.....	.....	.....
West Virginia.....	8	4	L, 5, 5, 5.	.....	.....	3	3, 3, 1.	.....	.....	1	5.
Wisconsin.....	12	7	L, L, L, 5, 1, 1, 1.	.....	.....	.....	.....	.....	.....	5	L, 1, 1, 1, 1.
Wyoming.....	22	.....	.....	5	L, L, 4, 4, 3.	15	L, L, 3, 3, 3, 3, 3, 2, 2, 2, 2, 2, 1, 1, 1.	.....	.....	2	L, 5.
United States.....	460	183	.....	57	.....	127	.....	20	.....	73	.....

1 "Equivalent certificate" good in schools for which originally issued and for time originally issued.

2 Time not given.

3 In cases where certificates are issued for limited periods of time which may vary with individual cases they are classed as temporary (T).

4 Valid in "rural schools," "rural villages and towns," and "rural and towns up to 1,000 population."

5 One certificate good to teach in junior high schools.

TABLE 6.—*Certificates issued by county agencies that are valid throughout the county, distribution among the respective classes of schools, and duration of such certificates.*

States.	No.	Any school.		High school.		Elementary.		Primary and kindergarten.		Subjects named.	
		No.	Duration.	No.	Duration.	No.	Duration.	No.	Duration.	No.	Duration.
Arkansas.....	4	3	2, 1, 6 mos.							1	2.
California.....	8	1	6.	1	T.	2	6, T.	2	6, T.	2	6, T.
Colorado.....	3	1	3.			2	2, 1, 1.				
Delaware.....	1					1	T.				
Georgia.....	9			3	3, 2, 1.	3	3, 2, 1.	3	3, 2, 1.		
Idaho.....	3					3	5, 3, 1.				
Illinois.....	7	1	3.	1	3.	3	3, 2, T.	1	2.	1	2.
Indiana.....	6					6	3, 3, 2, 2, 1, 1.				
Kansas.....	3					3	3, 1, 2, 1.				
Kentucky.....	2	2	4, 2.								
Michigan.....	5	3	4, 3, 3.					2	1, 1.		
Mississippi.....	8	5	3, 2, 1, 1, 1.							3	3, 3, 1.
Missouri.....	5	5	3, 2, 2, 1, T.								
Nebraska.....	2					2	3, 2.				
New Jersey.....	5			1	2.	1	T.			3	T, T, T.
Ohio.....	8			1	3.	5	3, 1, 1.			2	4, 3.
Oklahoma.....	3	3	4, 2, 1.								
Oregon.....	1	1	T.								
Pennsylvania.....	2									2	3, 1.
South Carolina.....	4	4	2, 2, 2, 2.								
Texas.....	1					1	6.				
Washington.....	2					1	T <sup>6</sup> .			1	T.
Wisconsin.....	4	4	6, 3, 1, 1.								
United States.	96	33		7		33		8		15	

<sup>1</sup> Valid in any other county upon application.

<sup>2</sup> May be validated in other counties in emergency for one year.

<sup>3</sup> Valid in any county when transferred by State superintendent.

<sup>4</sup> Indorsable by other county or district superintendents.

<sup>5</sup> Registration in any other county permitted.

<sup>6</sup> Valid in specific grade.

TABLE 7.—*Kinds of certificates issued—By whom questions are prepared and examined.*

States.	Kinds of certificates issued by—						Kinds of certificates for which questions are prepared by—				Kinds of certificates for which papers are examined by—			
	State board.	State supt. or State dept.	County board.	County superintendent.	Local authorities.	State normal schools or universities.	State board.	State supt. or State dept.	County board.	County superintendent.	State board.	State supt. or State dept.	County board.	County superintendent.
Alabama.....	6						4				4			
Arizona.....	6						5				5			
Arkansas.....	1	4		4		3	1	6			1	3		3
California.....	4		4	4					1				1	
Colorado.....	4			3	1 1	1	1	3			1			3
Connecticut.....	8				1 2		8				8			
Delaware.....		13		1				2				2		
Florida.....		14					6				6			
Georgia.....	5		9					9						9
Idaho.....	6			3			6				3	3		
Illinois.....		3		7			10				10			
Indiana.....	4	17		6		4	24				12	12		
Iowa.....	10	1					7				7			
Kansas.....	7		3			5	5				2		3	
Kentucky.....	4			2		3	5				5			
Louisiana.....	4						4				4			
Maine.....		9			1 1			4				4		
Maryland.....		11					4				4			
Massachusetts.....	5				1 1		1				1			
Michigan.....	6	4	5	1		1	1	4		1	2		3	1
Minnesota.....		9				1		5				5		
Mississippi.....	10		8				16				8		8	
Missouri.....		2		5		5		5		1		5		1
Montana.....	14	1					6				6			
Nebraska.....		7	2			4		4				4		
Nevada.....	10						3				3			
New Hampshire.....		10					3				3			
New Jersey.....	20			5	5		3				3			
New Mexico.....	7						4				4			
New York.....		10			5			9				9		
North Carolina.....	15						12				12			
North Dakota.....	9						4				4			
Ohio.....	3	3			6		2	6			2		3	3
Oklaoma.....	4 8		4 3			3		4				1	3	
Oregon.....		14		1			5				5			
Pennsylvania.....		3		2		3	1		2		1		2	
Rhode Island.....	12						3				3			
South Carolina.....	5	1	4				6				3		3	
South Dakota.....		10					7				7			
Tennessee.....		8					4				4			
Texas.....	2	10	1		1 2			5					1	
Utah.....	16						2				2			
Vermont.....	4													
Virginia.....	8							3				3		
Washington.....		3		2	2	7						3		
West Virginia.....		10						6				6		
Wisconsin.....		12		4			1	2		2	1			4
Wyoming.....	23							7				7		
Total.....	246	189	45	50	25	40	174	87	3	4	150	67	27	24

<sup>1</sup> Local authorities also prepare questions and examine papers.

<sup>2</sup> Same certificate issued by either county or city board. Listed here as two different certificates. Local authorities also examine papers for certificate which they issue.

<sup>3</sup> The certificates are issued by the commissioner of education, who is also president of the State university.

<sup>4</sup> One certificate issued by State or county board.

<sup>5</sup> One certificate issued by certain high schools.

TABLE 8.—Duration of certain certificates: A, issued by central agencies and valid throughout the State; B, issued by county agencies and valid in county only.<sup>1</sup>

## A. ISSUED BY CENTRAL AGENCIES AND VALID THROUGHOUT THE STATE.

States.	Life.	Duration in years.										Total.
		10	9	8	7	6	5	4	3	2	1	
Alabama.....	1					2		1		1		5
Arizona.....	1							4		1		6
Arkansas.....	1					4				1		6
California.....	4											4
Colorado <sup>2</sup> .....	1						4					5
Connecticut <sup>3</sup> .....											<sup>4</sup> 6	6
Delaware.....									11	2		13
Florida.....	4						5	2	1		1	13
Georgia.....										3		3
Idaho.....	2			2			1				1	6
Illinois.....								3				3
Indiana.....	6			1					6	5	5	25
Iowa.....							6			2	1	11
Kansas.....	4								5	1	2	12
Kentucky.....	2			1			1			1	1	6
Louisiana.....							2				1	4
Maine.....	4						1					8
Maryland.....									8	3		11
Massachusetts.....	2								1	2		5
Michigan.....	8							1	2			11
Minnesota.....	1						2			3		9
Mississippi.....	1						1		2		3	7
Missouri.....	4						1			2		7
Montana.....	5					4		1	1	1		13
Nebraska.....	1								8			9
Nevada.....	2						2	1	1	2		8
New Hampshire.....	5								1		3	9
New Jersey.....	9								1		<sup>4</sup> 11	21
New Mexico.....	1						2		1	1	2	7
New York.....	5						1		2	1		10
North Carolina.....	1								5	9		15
North Dakota.....	1						2		3	4		10
Ohio.....	2							4				6
Oklahoma.....	2						2			2	4	10
Oregon.....	4						5				4	13
Pennsylvania.....	4								1	1		6
Rhode Island.....	2						2		1	3	2	10
South Carolina.....		1					4					5
South Dakota.....	2						2		1	2		7
Tennessee.....							5			2	1	8
Texas.....	5					<sup>5</sup> 4		<sup>6</sup> 3				12
Utah.....	6						4			1	5	16
Vermont.....	1						1				1	3
Virginia.....		2				2				1		7
Washington.....	2						6			2		10
West Virginia.....	1						4		2		1	8
Wisconsin.....	4						1				7	12
Wyoming.....	5						1	2	6	5	3	22

<sup>1</sup> Certificates such as "valid at discretion of board," emergency, temporary, and those of indefinite term of validity are not included in the table.

<sup>2</sup> Colorado also issues an "honorary" life certificate for distinguished service.

<sup>3</sup> Certificates indefinite in duration—generally one year.

<sup>4</sup> Approximately in some cases.

<sup>5</sup> Four to six years in some cases.

TABLE 8.—Duration of certain certificates: A, issued by central agencies and valid throughout the State; B, issued by county agencies and valid in county only—Continued.

## B. ISSUED BY COUNTY AGENCIES AND VALID IN COUNTY ONLY.

States.	Life.	Duration in years.										Total.
		10	9	8	7	6	5	4	3	2	1	
Arkansas.....										2	1	3
California.....												4
Colorado.....						4						2
Georgia.....									3	3		9
Idaho.....							1				1	3
Illinois.....									3	3		6
Indiana.....									2	2	2	6
Kansas.....									1	1	1	3
Kentucky.....								1				2
Michigan.....									3	1	5	9
Missouri.....									1	2	1	4
Nebraska.....									1	1		2
New Jersey.....												1
Ohio.....												6
Oklahoma.....								1	3		2	3
Pennsylvania.....										1	1	2
South Carolina.....												4
Texas.....						1						1
Wisconsin.....						1			1		2	4

\* Good for 1½ years.

TABLE 9.—Amount of professional study required for certificates based primarily upon graduation from college in certain States.<sup>1</sup>

Amount.	States.
4 full courses.....	Texas.
4 semester hours.....	Idaho.
5 semester hours.....	Arizona.
6 semester hours.....	Rhode Island, West Virginia, North Carolina.
9 semester hours.....	Mississippi.
12 semester hours.....	Washington.
15 semester hours.....	Minnesota.
20 semester hours.....	Wyoming, West Virginia, Iowa.
21 semester hours.....	New Mexico.
30 semester hours.....	North Carolina.
200 recitation hours.....	Pennsylvania.
210 recitation hours.....	New Jersey.
One-half year graduate work with practical teaching of secondary grade.	California.
12 units in pedagogy.....	Do
6 half-year courses.....	Tennessee.
1 year.....	Delaware, Maryland, Utah.
1 year of 5½ hours per week.....	Michigan.
2 "year" courses.....	North Dakota.
One-sixth of entire course.....	Colorado.
Three-twentieths of full course.....	Florida.
One-fourth of all work for 18 months.....	South Dakota.
15 per cent of full course.....	Virginia.
(a) 3 year-hours in 2 educational subjects, or (b) 30 hours in 1 subject in summer school, or (c) normal diploma.	Massachusetts.
9 year-hours and thesis.....	Do.
"Prescribed" courses approved by State authorities.....	Maine, Vermont, New York, Delaware, Georgia, Wisconsin, Montana.

<sup>1</sup> If a State appears more than once in the list, it issues more than one certificate based on college graduation, and the requirements for such certificates are not the same.

TABLE 10.—*Certificates based upon graduation from standard colleges, including statement of additional requirements, and terms and conditions of renewal of such certificates.*

States.	Professional course.					No professional course.				
	Amount of professional work.	Certificates valid in—		Subjects examined in—	Years of experience required.	Years valid.	Certificates valid in—		Subjects examined in—	Years of experience required.
		Territory.	Schools.				Territory.	Schools.		
Alabama.....	Prescribed amount.	State.....	Prescribed	.....	See column 10.	See column 10.	.....	.....	.....	.....
Arizona.....	5 semester hours	do.....	Any.....	.....	None.....	4.....	.....	.....	.....	.....
Arkansas.....	1 year of graduate study.	County.....	High schs.	.....	17 months or none.	6.....	.....	.....	.....	.....
California <sup>1</sup> .....	do <sup>2</sup> .....	State.....	do.....	.....	48 months (21 in Calif.)	Life.....	.....	.....	.....	.....
	12 units.....	County.....	Elementary.	.....	8 months.	6.....	.....	.....	.....	.....
	do.....	State.....	do.....	.....	48 months (21 in Calif.)	Life.....	.....	.....	.....	.....
Colorado.....	1/6 of entire course.	do.....	Any.....	.....	24 months	5.....	.....	.....	.....	.....
	do.....	do.....	do.....	.....	None.....	3.....	.....	.....	.....	.....

<sup>1</sup> Normal schools, colleges, and the State board of education issue credentials to graduates of normal schools and colleges who have taken courses prescribed by the State board on the basis of these credentials. County boards may issue temporary, elementary, kindergarten, and special certificates.

<sup>2</sup> Recommendation of county board under which applicant has taught.



Connecticut	1 year (graduate work).	State	Adminis- trator.	5.	3.	Renewable for 3- year periods.	State	Any	(2)	do.	None	5.	Renewable on one year's attendance at summer school
	do.	do.	Spec. dis- tricts.	3.	3.	do.	do.	Any		do.		4.	Do
	do.	do.	High schs. Ele. and high.	2.	3.	do.	do.	Primary		do.		4.	Do
Delaware	Prescribed courses.	do.	High and advanced	1.	3.	do.	do.	Any		do.		4.	Do
	do.	do.	ele.	None.	3.	do.	do.			do.		4.	Do
	do.	do.	Elemen- tary.	3.	3.	do.	do.			do.		4.	Do
Florida	3/20 of full course.	do.	Any	Not stated	5.	Life certificate, 24 months' experi- ence and re- quired indorse- ment.	State	Any		do.		5.	Renewable on one year's attendance at summer school
Georgia	Requ coast courses.	do.	do.	Varies	3.	Renewable for 5- year periods when prescribed conditions are met.	do.	Any		do.		4.	Do
Idaho	4 semesters	do.	Grades 7-12	2	21 months	Life	do.	Grades 7-12	3	18 months	8.		At discretion of State board. Convertible into life.
							do.	High schs.	2	14 months	5.		Life certificate suc- cessful experi- ence. Renewable inden- tely.
Illinois							do.	County	4	3 (2 in State).	4.		Life certificate suc- cessful experi- ence. Renewable inden- tely.
Indiana							do.	County	2	None	3.		Life certificate suc- cessful experi- ence. Renewable inden- tely.
Iowa	20 hours	State	Any	None	5.	Life certificate, 5 years' experi- ence (3 during life of certificate).	State	Any	3	30 months (10 in State).	Life		Not renewable.
							do.	do.		None or 2 years.	5.		Not renewable.
Kansas							do.	Ele. and high.	2.	2.	3.		Renewable for life.
Kentucky	Prescribed by university.	State	Any	None	5.	Extended for life after 3 years ex- perience.	do.	High schs.	None	None	At discre- tion of State board.		May be validated for term of years not stated.
Louisiana							State	Elementa- ry.		None	5.		Renewable for 5 years.

\* Prescribed reading course.

\* Thesis also required, and one higher subject.

\* And one higher subject.

TABLE 10.—*Certificates based upon graduation from standard colleges, including statement of additional requirements, and terms and conditions of renewal of such certificates—Continued.*

States.	Professional course.						No professional course.			
	Amount of professional work.	Certificates valid in—		Years of experience required.	Years valid.	Terms and conditions of renewal or of granting higher certificates.	Certificates valid in—		Years of experience required.	Years valid.
		Territory.	Schools.				Territory.	Schools.		
Maine.....	(a) Course in pedagogy or (b) examination.	State...	Grades for which issued.	0.....	2.....	Permanent professional secondary certificate, 5 years' experience.	State...	Grades for which issued.	.....	2, 3, or 5, as indicated.
Maryland.....	1 year (graduate).	State...	Any.....	2.....	3.....	Renewable on evidence of successful experience and professional spirit.	.....	.....	.....	.....
	1 year.....	do.....	Elementary.	4.....	3.....	do.....	.....	.....	.....	.....
	200 hours.....	do.....	High and ele. with consent of State	None.....	3.....	do.....	.....	.....	.....	.....
	300 hours.....	do.....	supt. Special subjects.	4.....	3.....	do.....	.....	.....	.....	.....
	1 year (graduate).	do.....	High schs.	2.....	3.....	do.....	.....	.....	.....	.....

State	At discretion of the State board; permanent, 2 years' experience in Massachusetts and presentation of thesis.	State-aided high schs.	0	2	At discretion of the State board; permanent, 2 years' experience in Massachusetts and presentation of thesis.	(State... do....)	State-aided high schs.	2	2	At discretion of the State board; permanent, 2 years' experience in Massachusetts and presentation of thesis.
Massachusetts	(a) 3 year-hours in 2 educational subjects and (1) 2 subjects of 1½ hours each, or (2) practice-teaching or	do....	do....	do....	do....	do....	do....	do....	do....	do....
	(b) 30 hours in 1 subject in summer school or	do....	do....	do....	do....	do....	do....	do....	do....	do....
	(c) normal school diploma.	do....	do....	do....	do....	do....	do....	do....	do....	do....
	(9 year-hours and thesis.	State...	Supt....	3 and experience as supt.	Superintendent's permanent certificate, completion of semester's course in educational theory and presentation of required thesis.	do....	do....	do....	do....	do....
Michigan	(1 year of 5½ hours per week. Diploma for professional work from University of Michigan.	do....	Any....	None....	Life....	do....	do....	do....	do....	do....
	(1 year of 5½ hours per week.	do....	do....	do....	do....	do....	do....	do....	do....	do....
Minnesota	12 hours.....	do....	do....	1 or none	2	Similar period; after 2 renewals usually matures into life certificate.	do....	do....	do....	do....

\*If from University of Minnesota, no experience required; 1 year if from other colleges.



	(a) 210 hours, and (b) examination.	State...	Branch specified	6 0.....	3.....	Permanent, 3 years' experience.	State-aided schs. (teaching agriculture).	3.....	Life.....	Renewable upon recommendation; Permanent, 3 years experience.
New Jersey...	do.	do.	Secondary, as teacher, principal, or supervisor.	3.....	Life.		do.	"Ad- quitefarm exper- ence."	1.....	Do.
	As above and permanent secondary certificate.	do.	Supervisor.	2 5 (1 as supervisor).	Not given.	Permanent, 3 years' supervising experience.	State-aided vocational schs. (teaching household art).	3.....	Life.....	Do.
	do.	do.	do.	3 as supervisor.	Life.		do.	"Satis- factory."	1.....	Do.
N. Mexico...	21 hours.	do.	High schs.	None....	3 or 5.....	Permanent certificate, 45 months' experience.	State-aided vocational schs. (vocal sub- ject).	None....	1.....	Permanent, 3 years experience.
New York...	Prescribed course.	do.	Any.....	3.....	Life.		State.....	4 New York.	Life.....	Renewable for 1 year; life certificate upon examination with grade of 75 per cent.
	do.	do.	do.	0.....	3.....	Renewed by indorsement; permanent certificate after 3 years' experience.	do.	None....	2.....	
	6 hours during one year.	do.	High schs.	Not stated	3.....	Renewable for (a) reading circle work, (b) summer school attendance.				
N. Carolina...	do.	do.	Any.....	2, 3, or 4.	2.....	do.				
	do.	do.	do.	1.....	2.....	do.				
	Required courses.	do.	Ele super- visor.	3.....	2.....	do.				
	30 semester hours.	do.	Any.....	2.....	Life.					
N. Dakota...	2-year courses.	do.	do.	None....	2.....	5-year certificate, 9 months' experience; life certificate, 5 years' experience.				

\* And 4 elementary subjects.

TABLE 10.—*Certificates based upon graduation from standard colleges, including statement of additional requirements, and terms and conditions of renewal of such certificates—Continued.*

States.	Professional course.					No professional course.					Terms and conditions of renewing or of granting higher certificates		
	Amount of professional work.	Certificates valid in—		Professional subjects examined in.	Years of experience required.	Years valid.	Terms and conditions of renewing or of granting higher certificates.	Certificates valid in—		Professional subjects examined in.		Years of experience required.	Years valid.
		Territory.	Schools.					Territory.	Schools.				
Ohio.....								{ State..... ..do.....	High schs. ..do. sub- jects only.		50 months None.....	Life..... 4.....	Renewable.
Oklahoma.....							{ ..do..... ..do.....	Spec. sub- jects only. High. schs.		Not stated.	None.....	Life.....	
Oregon <sup>3</sup> .....							{ ..do..... ..do.....	High. schs. ..do.....			None.....	1.....	
Pennsylvania.....	{ 200 hours..... do.....	State.....	Branches named. do.....	3.....	Life.....		{ ..do..... ..do.....	..do..... ..do.....			6 months. 30 months	5..... Life.....	
R. Island.....	6 semester courses.	do.....	High schs.	do.....	3.....	Life, 3 years' experience. Renewed for 2 periods of 6 years each; after 15 years' experience made permanent.	State.....	Supt.....			5 years as superintendent.	5.....	Permanent, 10 years' experience as superintendent.
S. Carolina.....	{ 1 of work for 18 months. do.....	State.....	Any.....	72 months (36 in S. Dak.). None.....	Life.....		County.....	Any.....			None.....	Indefinite.	
S. Dakota.....		do.....	do.....		2.....	Issued for necessary probationary period for life certificate. Renewable indefinitely.							
Tennessee.....	6 half-year courses.	do.....	High schs.	Not stated	5.....								

Texas.....	4 courses.....	do.....	Any.....	None.....	Life or good behavior.....	Life.....	Life.....	Life.....	Life.....
Utah.....	{ 36 semester hours.....	do.....	do.....	5.....	Life.....	Life.....	Life.....	Life.....	Life.....
	1 year.....	do.....	do.....	None.....	5.....	Life.....	Life.....	Life.....	Life.....
	do.....	do.....	High sch. or any.....	None.....	5.....	Life.....	Life.....	Life.....	Life.....
Vermont.....	Prescribed pedagogical course.....	do.....	Any.....	"Some".....	Life.....	Life.....	Life.....	Life.....	Life.....
Virginia.....	15 per cent of full course.....	do.....	Any, when indorsed by division supt. Any.....	Not stated.....	10.....	Life.....	Life.....	Life.....	Life.....
Washington.....	{ 12 semester hours (Wash. State College).....	do.....	Any.....	None.....	5.....	Life.....	Life.....	Life.....	Life.....
	{ 12 semester hours (Univ. of Wash.).....	do.....	do.....	do.....	5.....	Life.....	Life.....	Life.....	Life.....
W. Virginia.....	{ 20 semester hours (5 in school supervision).....	do.....	do.....	2.....	5.....	Life.....	Life.....	Life.....	Life.....
	{ 20 semester hours.....	do.....	do.....	None.....	5.....	Life.....	Life.....	Life.....	Life.....
Wisconsin.....	{ Required course.....	do.....	do.....	2.....	Life.....	Life.....	Life.....	Life.....	Life.....
	{ do.....	do.....	do.....	None.....	do.....	do.....	do.....	do.....	do.....
	{ do.....	do.....	do.....	do.....	1.....	do.....	do.....	do.....	do.....
Wyoming.....	{ 20 hours.....	do.....	Administrative.....	3.....	Life.....	Life.....	Life.....	Life.....	Life.....
	{ 16 hours.....	do.....	High schs. Principal.....	3.....	do.....	do.....	do.....	do.....	do.....
	{ 10 hours.....	do.....	grades 1-10 and county supt. ....	1.....	3.....	do.....	do.....	do.....	do.....

\* Graduates from nonstandard colleges receive similar certificates upon prescribed examination in subjects to be taught.

\* Separate certificates issued for administration and supervision.

TABLE 11.—*Certificates to which graduates and students of various courses in State normal schools are eligible, together with terms and conditions of renewal of such certificates.*

States.	Based on 4-year high-school course and 2-year normal-school course or less.										Based on 4-year high-school course and normal course longer than 2 years.			
	Years in— Normal school		Certificates valid in— Territory.      Schools.				Years' experience required.	Years valid.	Terms and conditions of renewal or of granting higher certificates.	Years in— High school	Certificates valid in— Territory.      Schools.		Years' experience required.	Terms and conditions of renewal or of granting higher certificates.
Alabama.....	2	4	Any	State.....	None.....	4	Renewable for 4 years after 2 years' experience.	4	Renewable for 4 years after 2 years' experience.					
Arizona.....	2	4	County	do.....	do.....	6	Renewable for life.	6	Renewable for life.					
Arkansas.....	2	4	Intermediate, Kindergarten and primary.	do.....	8 mos.	6	Renewable; permanent after 5 years' experience.	6	Renewable; permanent after 5 years' experience.					
California.....	2	4	do.....	do.....	1	6	do.....	6	do.....					
	2	4	Special branches	do.....	1	6	Not renewable.	6	Not renewable.					
	2	4	Elementary	do.....	do.....	6 mos.	do.....	6 mos.	do.....					
	2	4	Kindergarten	do.....	do.....	6 mos.	do.....	6 mos.	do.....					
	2	4	Special subjects	do.....	do.....	6 mos.	do.....	6 mos.	do.....					
Colorado.....	2	4	Any	State.....	do.....	Life.	do.....	Life.	do.....					
Connecticut.....	2	4	Elementary	State.....	3	3	Renewable for 3 years.	3	Renewable for 3 years.					
	2	4	Principal	do.....	3	3	do.....	3	do.....					
Delaware.....	2	4	Elementary supervisor	do.....	3	3	do.....	3	do.....					
	2	4	Elementary	do.....	None.....	3	do.....	3	do.....					
	2	4	Primary	do.....	3	3	do.....	3	do.....					
	(3)	4	Elementary	do.....	None.....	2	Renewable according to requirements.	2	Renewable according to requirements.					
Florida.....	2	4	Any	do.....	do.....	5	do.....	5	do.....					
Georgia.....	2	4	Primary	do.....	do.....	4	Renewable in accordance with prescribed conditions.	4	Renewable in accordance with prescribed conditions.					
	(3)	4	Any	do.....	do.....	3	do.....	3	do.....					
	2	4	do.....	do.....	18 mos.	8	Renewable.	8	Renewable.					
Idaho.....	2	4	Subjects named	do.....	None.....	8	do.....	8	do.....					
	2	4	7-12	do.....	do.....	5	Not stated.	5	Not stated.					
	2	4	do.....	do.....	30 mos.	6	8 months' experience, renewable for 2 years.	6	8 months' experience, renewable for 2 years.					
	(3)	4	Elementary	County	do.....	1	Renewable according to requirements.	1	Renewable according to requirements.					





TABLE 11.—*Certificates to which graduates and students of various courses in State normal schools are eligible, together with terms and conditions of renewal of such certificates—Continued.*

States.	Based on 4-year high-school course and 2-year normal-school course or less.					Based on 4-year high-school course and normal course longer than 2 years.				
	Years in—		Certificates valid in—		Terms and conditions of renewal or of granting higher certificates.	Years' experience required.		Years' experience required.		Terms and conditions of granting higher certificates.
	Normal school.	High school.	Territory.	Schools.				Territory.	Schools.	
Kentucky.....	1	4	State ..	Elementary.....	Not stated.....	None.....	1.....	State....	Any.....	Life certificate, 3 years' experience.
Louisiana.....	2	4	do. ....	Intermediate.....	do. ....	do. ....	2.....	.....	.....	.....
Maine.....	2	4	do. ....	Elementary.....	Renewable for 5 years.....	do. ....	5.....	.....	.....	.....
	2	4	do. ....	Specified grades.....	Permanent after 5 years' experience.....	do. ....	2.....	.....	.....	.....
Maryland.....	( <sup>9</sup> )	4	do. ....	do. ....	Renewable after successful experience.....	do. ....	Period specified.....	.....	.....	.....
	2	4	do. ....	Elementary.....	Renewable as specified.....	4.....	3.....	.....	.....	.....
Massachusetts..	2	4	do. ....	do. ....	do. ....	None.....	3.....	.....	.....	.....
	( <sup>9</sup> )	4	do. ....	do. ....	do. ....	do. ....	2.....	.....	.....	.....
Michigan.....	10 2	4	do. ....	Special subject.....	Life certificate, after meeting specified requirements.....	do. ....	3.....	.....	.....	.....
	16	4	do. ....	Superintendent.....	do. ....	2 or 3.....	3.....	.....	.....	.....
Minnesota.....	16	4	do. ....	Rural schools.....	Not renewable.....	None.....	3.....	.....	.....	.....
	16	4	do. ....	Any.....	Renewable for period of 3 years.....	do. ....	3.....	.....	.....	.....
Mississippi.....	2	4	do. ....	9 grades.....	do. ....	do. ....	Life.....	.....	.....	.....
	2	4	do. ....	Subjects named.....	do. ....	do. ....	Life.....	.....	.....	.....
Missouri.....	2	4	do. ....	Kindergarten.....	do. ....	do. ....	do. ....	.....	.....	.....
	2	4	do. ....	and primary.....	do. ....	do. ....	do. ....	.....	.....	.....
Missouri.....	8 1	4	do. ....	Rural elementary.....	Renewable upon completion of required work.....	8 mos.....	5.....	.....	.....	.....
	2	4	do. ....	Elementary.....	Renewable.....	None.....	Life.....	.....	.....	.....
Missouri.....	2	4	do. ....	Any.....	do. ....	do. ....	Life.....	.....	.....	.....
	2	4	do. ....	Elementary.....	do. ....	do. ....	Life.....	.....	.....	.....
Missouri.....	2	4	do. ....	do. ....	do. ....	do. ....	Life.....	.....	.....	.....
	2	4	do. ....	High schools.....	do. ....	do. ....	Life.....	.....	.....	.....
Missouri.....	2	4	do. ....	Elementary.....	do. ....	do. ....	Life.....	.....	.....	.....
	3	4	do. ....	High schools.....	do. ....	do. ....	Life.....	.....	.....	.....

Montana	2	4	do.	Any	27 mos.	do.	Renewable for 6 years on completion of 27 months' experience and reading crude work.	4	4	State	High schools	None	5	Life, 45 months' experience.
	2	4	do.	do.	18 mos.	do.								
	2	4	do.	do.	None	6								
Nebraska	2	4	Districts indexed.	High schools	do.	3	Life, 24 months' experience and 1 year professional work.	4	4	State	High schools	None	5	Life, 45 months' experience.
	2	4	State	Rural	do.	3	Merges into life.							
	(11)	4	Districts indexed.	Elementary	do.	3	Life, 1 year college or normal work and 24 months' experience.							
Nevada	2	4	State	do.	45 mos.	Life	Life, 45 months' experience.	4	4	State	High schools	None	5	Life, 45 months' experience.
	2	4	do.	do.	None	5								
	2	4	do.	do.	16 mos.	3								
N. Hampshire	2	4	do.	do.	1 and 2	Life	Renewable for 1 or 3 years upon recommendation of superintendent.	4	4	State	Subjects specified.	None	3	Renewable for 2 years. Life, 3 years' experience.
	2	4	do.	do.	None	1								
	(7)	4	do.	do.	None	1								
New Jersey	* 2	4	do.	Junior high schools.	1	Life	Renewable once for 2 years	4	4	State	Subjects specified.	None	3	Renewable for 2 years. Life, 3 years' experience.
	(11)	4	do.	Elementary	None	1								
	(7)	4	do.	do.	None	1								
New Mexico	2	14	do.	Agriculture	do.	1	Renewable.	4	4	State	do.	3	Life.	Life.
	2	14	do.	do.	3	Life								
	2	4	do.	Any	45 mos. (9 in State).	do.								
New Mexico	2	4	do.	do.	27 mos. (9 in State).	5	Life, after 45 months' experience.	4	4	State	do.	3	Life.	Life.
	2	4	do.	do.	27 mos. (9 in State).	5								
	2	4	do.	High schools	None	3 or 5								

1 In addition, applicant must have full half-year professional course at college or university.

2 Applicant must have 2 years' additional work at college or university.

3 Summer school course or 6 weeks' professional course.

4 Must also pass examination.

5 "Satisfactory course;" length not designated.

6 Must also pass examination, or have 9 year hours' credit for professional work and must submit thesis.

7 Diploma from Mississippi State Normal College; 6 years above grammar school.

8 12 hours' credit in university, college, or normal school.

9 Must have attended summer school for 2 terms of 6 weeks each.

10 Also 4 "short courses" in agricultural college.



	2	4	...	do.	...	30 mos	Life						
Oregon.....	2	4	do.	do.	Ele. and 3 years high school.	6 mos.	5.	Life, 36 months' experience in Oregon.					
	2	4	do.	do.	do.	None.	1.	5-year certificate, 6 months in Oregon.					
Pennsylvania.....	2	4	do.	do.	Branches named	do.	2.	Life, 2 years' experience.	3	4	State.	Elementary	None
	2	4	do.	do.	Superintendent.	5 as superintendent.	5.	May be valid until holder qualifies for life certificate. Life after 10 years experience.					2.
Rhode Island.....	(1)	4	do.	do.	Elementary	None.	Until next exam.	Not renewable.					Renewable for 4 years, then 9. After 15 made permanent.
	(11)	4	do.	do.	High school	do.	do.	do.	4	4	State.	Any.	None
South Carolina.....	2	4	State.	do.	Ele. and first yr. of high school.	40 mos	Life						Life.
South Dakota.....	2	4	do.	do.	do.	15 mos	8	Renewable					
	2	4	do.	do.	Named subjects	None	5	do.					
Tennessee.....	2	4	do.	do.	Any	do.	5	Renewable indefinitely.					
	(12)	4	do.	do.	do.	do.	6	Not stated	14	4	State.	Any	None
Texas .....	(13)	4	do.	do.	Elementary	do.	6	do.					Life.
	2	4	do.	do.	Kindergarten.	do.	4	Permanent, 3 years' experience.					
	3	4	do.	do.	Junior high schools.	do.	1.						
Utah.....	2	4	do.	do.	Elementary	5	Life						
	(14)	4	do.	do.	do.	2.	5.	Extended for college work.					
	2	4	do.	do.	do.	None	2.	Extended for required college work.					
	1	4	do.	do.	do.	do.	2.	Not renewable.					
Vermont.....	(15)	4	do.	do.	do.	30 weeks	2.	do.					
	2	4	do.	do.	Any	do.	6	Renewable twice.					
	2	4	do.	do.	do.	None	1.	do.					
	2	4	do.	do.	do.	do.	10.	Renewable as specified.					
	2	4	do.	do.	Ele. and 2 years high school.	do.	10.	do.					
Virginia.....	1	4	do.	do.	Elementary	do.	6.	do.					
	(16)	4	do.	do.	Any	do.	5.	do.					
	(17)	4	do.	do.	Elementary	7 mos.	5.	do.					
	(18)	4	do.	do.	do.	None.	2.	do.					

<sup>3</sup> Summer school course or 6 weeks' professional course.

\* Must also pass examination.

<sup>6</sup> Temporary elementary and high-school certificates are issued to persons having one and two years of college work above the high school.

\* Additional certificates issued for 4 and 6 years on completion of course in College of Industrial Arts and Texas State normal schools.

9 Texas State Normal.  
10 36 semester hours.

**18 semester hours.**

TABLE 11.—*Certificates to which graduates and students of various courses, in State normal schools are eligible, together with terms and conditions of renewal of such certificates—Continued.*

States.	Based on 4-year high-school course and 2-year normal-school course or less.							Based on 4-year high-school course and normal course longer than 2 years.						
	Years in—		Certificates valid in—		Years' experience re- quired.	Years valid.	Terms and conditions of renewal or of granting higher certificates.	Years in—		Certificates valid in—		Years' experience re- quired.	Years valid.	Terms and condi- tions of renewal or of granting higher certi- ficates.
	Normal school.	High school.	Territory.	Schools.				Normal school.	Normal school.	Territory.	Schools.			
Washington.....	2 1/2	4	State....	Any.....	45 mos.(27 in State).	Life.....		{ 4	4	State....	Any.....	None....	5....	Life, 24 months' ex- perience, or re- newed for like period. Do.
	2	4	do.....	Elementary.....	None.....	5.....		{ 3	4	do.....	Varies.....	do.....	5....	
	1	4	do.....	do.....	9 mos.....	5.....	Renewable for like period or after 24 months' expe- rience for life. Renewable twice for pro- fessional school attend- ance.							
	1 (2)	4	do.....	do.....	None.....	2.....	Not stated. Renewable twice for pro- fessional school attend- ance.							
	(*)	4	County, Ele. and high school.	Specified.....	do.....	Temp'y.....	Renewable as specified.							
West Virginia.....	2	4	State.....	Any.....	2.....	5.....	Renewable for 5 years.							
	2	4	do.....	do.....	do.....	Life.....	Renewable for 1 year.							
	2	4	State.....	do.....	None.....	1.....	do.....							
	2	4	do.....	Branches speci- fied.....	do.....	1.....	do.....							
Wisconsin.....	2	4	do.....	Any.....	do.....	1.....	do.....							

2	4	do.	Spec. technical subj.	2	Life	3	4	State	7-12	2	4	Indefinitely for 3- year periods. Do.
2	4	do.	Elementary	3	do.	3	4	do.	Principal, 9- 12 grades, supt. 1-10 grades; co. supt.	2	4	
2	4	do.	Rural and ele- mentary.	3	do.							
(24)	4	do.	Elementary	2	3	Renewable 3 times for 3- year periods.						
(25)	4	do.	do.	2	3	do.						
(26)	4	do.	Rural and ele- mentary.	1	2	Renewable twice for 2-year periods.						
(27)	4	do.	do.	3	3	Renewable 3 times for 3- year periods.						
(28)	4	do.	do.	2	3	do.						
(29)	4	do.	7-10 grades	1	3	Indefinitely for 3-year pe- riods.						
2	4	do.	Principal 1-10 grades.	1	3	do.						
(30)	4	do.	Elementary	None	2	Renewable twice for 2- year periods.						
(31)	4	do.	Rural	do.	1	Renewable once for 2-year period.						

Wyoming

<sup>2</sup> Applicant must have 2 years' additional work at college or university.

<sup>3</sup> Must also pass examination.

<sup>12</sup> 12 hours' credit in university, college or normal school.

<sup>22</sup> The requirement is for 1 year and 12 semester hours (indicated as 1½ years) and in addition an examination.

<sup>24</sup> Requires 9 weeks' professional training and examination.

<sup>25</sup> Must have 1 semester's professional training in higher institution.

<sup>26</sup> Same certificate is granted for college or university graduation.

<sup>27</sup> Normal training equivalent to 30 semester hours.

<sup>28</sup> Normal training equivalent to 15 semester hours.

<sup>29</sup> Normal training equivalent to 5 semester hours.

TABLE 12.—*Certificates based upon graduation from secondary schools, together with terms and conditions of renewal of such certificates.*

States.	Professional course.					No professional course.					
	Amount of professional work.	Certificates valid in—		Examination subjects.	Years experience required.	Terms and conditions of renewal or of granting higher certificates.	Certificates valid in—		Examination subjects.	Years experience required.	Terms and conditions of renewal or of granting higher certificates.
		Territory.	Schools.				Territory.	Schools.			
Arkansas.....							State.....	Any.....		None or 12 months.	Based on compliance with regulations of State board.
Georgia.....	Prescribed	State.....	Special subjects.		None.....	Renewable.					
Idaho.....	6 weeks.....	County.	Elementary.	4 1	7 months.	Renewable. Issued only to holders of lower grade certificate.	County <sup>1</sup>	Elementary	11 3 3	7 months.	According to specified requirements.
Illinois.....	4-year normal training high school.	State.....	Any.....		None.....	Renewable for 3 years according to requirements.	County.	Elementary	10 1 2	None.....	Do.
Iowa.....	Grad. from training course.	State.....	Elementary.		None.....	Renewable for 2-year periods.	State.....	Elementary		4.....	Renewable. Permanent after 3 years' experience if attend normal or college for 1 year.
Kansas.....											Not renewable after successful experience.
Maine.....	Normal course..... Required.	State.....	do.....	5 5	do.....	Not renewable. Issued to holders of certain certificates only.	County.....	do.....	10 10 1	7 months.	Renewable after successful experience.
Minnesota.....	Must have grade of 75 per cent in subjects of high sch. tr. dept.	State.....	Rural.....		None.....	Renewable upon recommendation of county supt. after 12 months' experience and completion of required professional course.	State.....	Grades specified.		(2)2.....	



Teachers' training course.	County.	Any	.....	.....	2	Converted into first-grade certificate after 32 weeks' experience and one term of professional training.	County.	Any	.....	14 6	8 months.	3	Renewable indefinitely.
Missouri.....	State	Ele. and rural.	.....	.....	do.	2	State	do.	.....	4 2	12 months.	5 1	Renewable according to requirements.
Montana.....	State	Elementary	.....	.....	None.	2	do.	do.	.....	2 2	40 months.	Life	
Nebraska.....	do.	Rural	.....	.....	do.	3	do.	do.	.....				
N. Hampshire.....	State	Elementary	.....	.....	0	1	State	Elementary	.....	4 4		Life.	
New Jersey.....	do.	do.	.....	.....	4 2	Life.	State	Any (subjects specified).	.....	1 3		1	
New York.....	State	Elementary	.....	.....	None.	2	District	Elementary	.....	3		10	Renewals for diploma periods.
N. Dakota.....	do.	do.	.....	.....	8 months.	3	do.	do.	.....				
Ohio.....	County	Highschools	.....	.....	6 1	1 or 3	do.	do.	.....				
Oklahoma.....	State	Any	.....	.....	do.	1	do.	do.	.....				
Oregon.....	State	Any	.....	.....	None.	1	do.	do.	.....				
S. Dakota.....	State	Subjects named	.....	.....	None.	1	do.	do.	.....				
	County	Elementary	.....	.....	do.	3	do.	do.	.....				

<sup>1</sup> All county certificates require high-school graduation unless teacher has a required amount of experience.

<sup>2</sup> Examination or experience required.

<sup>3</sup> After January 1, 1919, applicant will be required to furnish evidence of completion of one year of college work.

<sup>4</sup> Also examination in special subjects applicant wishes to qualify for.

<sup>5</sup> After January 1, 1919, applicant will be required to furnish evidence of completion of two years of college work.

<sup>6</sup> Must hold training-class certificate and regents' academic diploma or have three years' experience in addition to high-school graduation.

<sup>7</sup> After January, 1920.

<sup>8</sup> After September 1, 1920, a minimum of 12 weeks of professional training will be required.

<sup>9</sup> Period specified.

TABLE 12.—*Certificates based upon graduation from secondary schools, together with terms and conditions of renewal of such certificates—Continued.*

States.	Professional courses.						No professional course.								
	Amount of professional work.	Certificates valid in—		Examination subjects.	Years' experience required.	Terms and conditions of renewal or of granting higher certificates.	Territory.	Schools.	Elementary.	Higher.	Professional.	Years' experience required.	Years valid.	Terms and conditions of renewal or of granting higher certificates.	
Tennessee	4-year normal high-school course.	State	Elementary	None	5....	Renewable indefinitely. <sup>10</sup>	County	Elementary	Elementary	11	7	4	7 months.	5....	According to specified requirements. Do.
Utah							State	Elementary outside of cities of 1st and 2nd class.	Elementary			(u)	2 years in Utah.	2....	
Vermont	Required	State	Any	None	1....	Renewable twice.									
Virginia	4-year normal high school.	State	Elementary	7 months	5....	Renewable for 5 years.									
Wisconsin	Teachers' training course.	County	Any	8 months	3 or 5	According to specified requirements.									
Wyoming	1 year	State	Rural	None	2....	Renewable twice for 2-year periods.	State	Special subjects.	Special sub- jects.			(u)	2	5....	Renewable for 3-year periods.

<sup>10</sup> Also included in table based on normal-school graduation.<sup>11</sup> Examination given but subject not stated.



TABLE 13.—*Scholarship and experience requirements for supervisors' certificates—Continued.*

States.	Duration of certificate in years.	Scholarship.				Examination subjects.				Years of experience.	Conditions and terms of renewal.
		Years of graduate study.	Years in college.	Years in normal school.	Years in high school.	Traditional.	New elementary.	Higher.	Professional.		
New Jersey.....	Life.....	.....	.....	.....	.....	.....	.....	.....	.....	3 as supervisor.....	Must hold limited certificate. Must be 25 years of age, hold permanent elementary or secondary certificate, and present testimonials of ability. To holders of permanent special subject certificate. Made permanent after 3 years' experience. Issued for elementary, grammar, or primary supervisor. Renewable. May be issued on graduation from an approved school or upon examination. Supervisor of any school. Must have required courses. Also issued on prescribed examination. Renewable. May also be issued on prescribed examination. Do.
	Not given.....	.....	.....	.....	.....	.....	.....	.....	.....	5, 1 as supervisor.....	
	1.....	.....	.....	.....	.....	.....	.....	.....	.....	Adequate.....	
North Carolina.....	2.....	.....	.....	.....	.....	10	1	.....	1	3.....	Issued for 5 years or until holder qualifies for life certificate. Evidence of character and education satisfactory to State board of education. Same. Issued for 5 years or until holder qualifies for life certificate. Satisfactory evidence of scholastic and professional qualifications. Not renewable. Do.
	2.....	.....	.....	.....	.....	.....	.....	.....	.....	1.....	
	3 1.....	.....	.....	.....	.....	.....	.....	.....	.....	None.....	
	2.....	.....	.....	.....	.....	.....	.....	.....	.....	2, 3, or 5.....	
	Life.....	.....	.....	.....	.....	.....	.....	.....	.....	10 as superintendent.....	
Rhode Island.....	5.....	.....	.....	.....	.....	.....	.....	.....	.....	5 as superintendent.....	Issued for 5 years or until holder qualifies for life certificate. Evidence of character and education satisfactory to State board of education. Same. Issued for 5 years or until holder qualifies for life certificate. Satisfactory evidence of scholastic and professional qualifications. Not renewable. Do.
	Life.....	.....	.....	.....	.....	.....	.....	.....	.....	ent.....	
	5.....	.....	.....	.....	.....	.....	.....	.....	.....	10 as superintendent.....	
	1.....	.....	.....	.....	.....	.....	.....	.....	.....	ent.....	
	Life administration.....	.....	.....	.....	.....	.....	.....	.....	.....	5 as superintendent.....	
Utah.....	5.....	.....	.....	.....	.....	.....	.....	.....	.....	None.....	Renewable for 5-year periods. Obtained by examination or proper school diplomas. Course must include required professional training. Same. Renewed for 3-year periods. Do.
	Life supervision.....	.....	.....	.....	.....	.....	.....	.....	.....	5 in administration.....	
	5 supervision.....	.....	.....	.....	.....	.....	.....	.....	.....	5 in supervision.....	
West Virginia.....	5.....	.....	.....	.....	.....	.....	.....	.....	.....	2.....	Renewable for 5-year periods. Obtained by examination or proper school diplomas. Course must include required professional training. Same. Renewed for 3-year periods. Do.
	Life.....	.....	.....	.....	.....	.....	.....	.....	.....	3.....	
	3.....	.....	.....	.....	.....	.....	.....	.....	.....	2.....	
Wyoming.....	4.....	.....	.....	.....	.....	.....	.....	.....	.....	1.....	Renewable for 5-year periods. Obtained by examination or proper school diplomas. Course must include required professional training. Same. Renewed for 3-year periods. Do.
	3.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.....	
	3.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.....	

1 Principal's certificate.

TABLE 15.—*Scholarship and experience requirements for primary and kindergarten certificates.*

[P. denotes primary certificate; S., special; K., kindergarten.]

States.	Duration of certificate.	Years of special training.	Years in college.	Years in normal school.	Years in high school.	Examination subjects.				Years of experience.	Conditions and terms of renewal. Additional information.
						Traditional.	New elementary.	Higher.	Professional.		
Arizona (P.).....	4.....									0.....	Must be graduate from approved school giving special preparation for primary work. Renewable for 4 years.
California (K. and P.).....	4.....									0.....	Must pass examination or have satisfactory credentials. Renewable for 4 years.
Connecticut (K.).....	Life.....									48 months.....	To holder of valid certificate upon presentation of proper recommendations. Renewable. After 5 years' experience may be made permanent.
Delaware (K. and P.).....	6.....		2.....		4.....		2.....			1.....	Renewable upon evidence of successful teaching.
Florida (P. and K.).....	3.....		2.....		4.....	9.....	2.....			0.....	Renewable for 3-year periods.
Georgia (P.).....	4.....		1.....		4.....	6.....	4.....	1.....		0.....	Renewable on one year's attendance at summer school.
Idaho (S., K., and P.).....	Life.....									32 months.....	Must have special training in kindergarten and in science and art of teaching. Renewable.
Illinois (K. and P.).....	3.....		2.....		4.....			1.....		0.....	Must be graduate of training school or in lieu of this graduation must pass examination. Renewable for 2 years.
Indiana (P.).....	3, 2, and 1.....					3.....				0.....	Provision made for exemption after 6 years' experience.
Iowa (K.).....	3, 2, and 1.....									0.....	Do.
Iowa (P.).....	5.....					4.....				2.....	Must present theme on assigned subject and must hold a second-grade uniform county certificate or certificate of higher grade. Renewable for life after 5 years' experience.
Kansas (S. and K.).....	3.....		2.....		4.....					0.....	Renewable.
Maine (S. and K.).....	2.....									0.....	Issued to persons who have satisfactorily completed an approved course in subject for which certificate is desired. Renewable for life after 5 years' experience.
Michigan (K. and P.).....	Life.....		2.....							0.....	Must also have (1) a teacher's certificate in force, (2) a college diploma or (3) a 4-year high-school diploma.
Minnesota (S. and K.).....	1.....									0.....	Must hold diploma from accredited school preparing teachers for special subjects. Renewable. Life, after two renewals.
Missouri.....											Renewable in attendance at summer school or meeting other requirements.
Montana (S., P., and K.).....	5.....			4.....					6.....	0.....	Issued to any teacher presenting satisfactory evidence of proficiency in teaching subject for which certificate is desired. Renewable.
Nevada (S. and K.).....	2.....									0.....	Issued at discretion of State board to applicants who are qualified to teach subject. Persistence not stated.

TABLE 15.—*Scholarship and experience requirements for primary and kindergarten certificates—Continued.*

State.	Duration of certificate.	Years of special training.	Years in college.	Years in normal school.	Years in high school.	Examination subjects.			Years of experience.	Conditions and terms of renewal. Additional information.
						Traditional.	New elementary.	Higher.	Professional.	
New Jersey (S. and K.).	1.....				4				0.....	Must pass examination in kindergarten subjects. Renewable for 2 years. After 3 years' experience, for life.
New York (S. and K.)..	3.....	2			4				0.....	Renewable for 5-year periods after 2 years' experience. Examination also given.
North Carolina (K.)....	2.....	2			4				0.....	Must have 6 hours in education of which 3 hours must be in methods of teaching. Renewable. In lieu of training may take examination or show satisfactory experience.
North Dakota (P.), K., and P.).	2.....	2			4				None or 3.....	Do.
Ohio (K. and P.).....	Prescribed.....				4				0.....	Validity prescribed by State board. Each applicant considered on individual merits. Renewable.
Oregon (S. and K.).....	4.....	2			4				0.....	Renewable. May be made life certificate after 24 months' experience. Must also present thesis on specified subject. Renewable for 36 weeks' attendance at an institution of higher learning or upon 32 months' successful experience.
Pennsylvania (S. and K.).	5.....				3				12 months.....	Graduation from an approved school under such conditions as may be imposed.
Pennsylvania (S. and K.).	Term of years and of life.								0.....	Issued on evidence of fitness, by examination or otherwise. Renewable.
South Carolina (K.)....	Not stated.....				8		1		Not stated.....	
South Dakota (P. and K.).									0.....	Renewable on year's attendance at summer school, obtained on graduation from college, university, or normal.
Texas (P. and K.).....	4.....						1	4	0.....	If holder of first-grade certificate, examination given only in subjects not examined in for such certificate. If holder of second-grade certificate, examination only in required additional subjects.
(P. in State).....	Life.....				11				3 in State.....	Must hold temporary State certificate.
(K. in State).....	do.....								0.....	Requirements as for permanent State certificate.
(K. in State).....	4.....	2			4				3 in State.....	Renewable for 5-year periods. Completion of approved courses of examination, which varies according to subjects for which issued.
(P. in City).....	Life.....								None or 2.....	Renewable for 1 year.
West Virginia (P., S., and K.).	5.....								0.....	Renewed indefinitely for 3-year periods. Must pass examination.
Wisconsin (K. and P.).	1.....				2				2.....	
Wyoming (S., P., and K.).	5.....				4					

TABLE 16.—*Subjects in which examination is required for first-grade county certificates, not including the traditional elementary subjects.*

[The cross (X) indicates that examination is given in the subject; X<sup>1</sup> indicates that examination is given in two phases of the subject; O indicates that the subject is optional, and its exponent indicates the number of subjects to be chosen from the optional group.]

States.	Higher (secondary) subjects.										New elementary subjects.				Professional subjects.										(Special subject.)			
	English.	General science.	Algebra.	Physics.	Civil government.	Literature.	Geometry.	Physical geography.	History (not U. S.).	Botany.	Biology.	Zoology.	Chemistry.	Drawing.	Music.	Agriculture.	Manual training.	Domestic science.	Principles of teaching.	Theory and practice.	Methods.	School law.	Pedagogy.	Theory and art.		Psychology.	School management.	Didactics.
Arkansas.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
California.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Colorado.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Georgia.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Idaho.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Illinois.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Indiana <sup>1</sup> .....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kansas.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kentucky.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Michigan.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mississippi.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Missouri.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nebraska.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ohio <sup>2</sup> .....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Oklahoma.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pennsylvania.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
South Carolina.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
South Dakota.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wisconsin.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

<sup>1</sup> Manual of elementary course of study for Idaho.

<sup>2</sup> Agriculture, domestic science, industrial arts, music, and drawing are optional subjects in Indiana.

<sup>3</sup> State course of study.

<sup>4</sup> Examination in "all the common branches, including agriculture and practical test in teaching."

<sup>5</sup> Manual of Wisconsin elementary school course.

TABLE 17.—*Scholarship and experience requirements for highest certificates based upon examination.*

States.	Certificate.	Duration of certificate.	Examination subjects.				Years of experience required.	Supplementary information.
			Traditional elementary.	New elementary.	Higher.	Professional.		
Alabama.....	Life.....	Life.....	10	1	4	5	5 years under first-grade certificate.	Must show high degree of efficiency and professional attainment and submit written history of teaching experience.
Arizona.....	Life.....	Life.....	.....	.....	7	3	15 years.....	Must hold first-grade certificate, which is issued on examination.
Arkansas.....	State.....	Life.....	.....	.....	.....	.....	20 months.....	Must hold professional license or take equivalent examination.
California.....	State diploma.....	Life.....	10	.....	8	2	40 months, 21 in California.	Holder of valid county certificate for one year.
Colorado.....	First-grade county.....	3 years.....	8	.....	2	2	12 months.....	Renewable at option of local superintendent. If to teach in high school, additional examination is given.
Connecticut.....	Elementary.....	1 year.....	9	2	2	.....	0.....	May be renewed upon evidence of successful experience.
Delaware.....	Elementary—second grade.....	2 years.....	10	4	.....	1	0.....	Must be high-school graduate, have had 6 weeks' professional preparation and be 20 years of age. Renewable upon 6 weeks' additional professional preparation.
Florida.....	State.....	5 years.....	.....	.....	.....	.....	.....	Must have grade of 90 per cent. Renewable.
Georgia.....	General elementary—Grade 1.....	3 years.....	13	1	.....	1	24 months.....	Must pass such examination as the board may direct.
Idaho.....	State-life.....	Life.....	.....	.....	6	1	5.....	Renewable.
Illinois.....	First-grade elementary.....	3 years.....	7	.....	.....	.....	6 months.....	Must pass such examination as the board may direct.
Indiana.....	Life license.....	Life.....	.....	.....	8	.....	48 months.....	Applicant must hold professional license.
Iowa.....	First-grade State, upon examination.....	5 years.....	8	2	10	5	2 years.....	Renewable for life.
Kansas.....	Three-year certificate.....	3 years.....	.....	.....	.....	.....	2.....	Prescribed examination. Renewable for life.
Kentucky.....	State teacher's diploma.....	Life.....	7	.....	6	3	2.....	Must have average of 90 per cent and be 24 years of age.
Louisiana.....	First grade.....	5 years.....	8	1	2	.....	0.....	Renewable for 5 years.
Maine.....	Permanent professional elementary.....	Life.....	.....	.....	.....	5	5.....	Must hold probationary professional elementary certificate, and have pursued some professional study during its validity.
Maryland.....	Elementary school teacher's certificate of the first grade.....	3 years.....	.....	.....	.....	.....	0.....	Graduation from 4-year high school or equivalent and 2-year normal, or issued on examination to person showing equivalent training.
Massachusetts.....	Local certificates.....	Life..... <sup>(1)</sup>	.....	.....	12	.....	.....	Examination by local board. Such qualifications as board may require.
Michigan.....	Life.....	Life.....	7	.....	12	1	2.....	Must have one year of professional training.
Minnesota.....	First grade.....	5 years.....	11	.....	8	.....	8 months.....	.....
Mississippi.....	Teacher's professional.....	Life.....	.....	.....	8	1	0.....	.....



Missouri.....	Life.....	Life.....	9	5	2	40 months.....	Must have completed 4-year high school and hold 5-year State certificate and pass examination (according to subject to be taught).
Montana.....	Life.....	Life.....	9	5	6	70 months.....	Must pass additional examinations as prescribed. If applicant holds an unexpired certificate obtained by examination, he shall be exempt from part of examination.
Nebraska.....	Professional State.....	Life.....	13	2	1	16 months.....	Must hold first-grade county certificate and obtain average of 80 per cent in examination.
New Hampshire.....	Elementary first grade.....	Life.....	13	2	1	16 months.....	Renewable.
New Jersey.....	Elementary teacher's.....	Life.....	13	2	1	4 in State.....	
New Mexico.....	Perm. State ele.....	Life.....	2	7	2	3.....	(1).
New York.....	Elementary State first grade.....	Life.....	10	1	6	20 months.....	Renewable for 3-year periods if requirements are met.
North Carolina.....	State.....	Life.....	7	1	9	4	Renewable for (a) reading circle work, (b) summer school attendance.
North Dakota.....	Elementary teacher's.....	Life.....	10	1	4	3.....	Renewable once.
Ohio.....	First-grade elementary.....	Life.....	8	2	4	2	Prerequisite for examination in high-school graduation and 1 year of college or normal, including 15 semester hours of professional work.
Oklahoma.....	State elementary.....	Life.....	11	3	4	2	Renewable after required amount of institute and summer school attendance.
Oregon.....	First-grade county State-life.....	Life.....	10	10	4	60 months, 15 in State.....	
Pennsylvania.....	Permanent State.....	Life.....	9	2	7	2	Renewable for 2 periods of 6 years each; permanent after 15 years' experience; examination prescribed by State board.
Rhode Island.....	First grade.....	Life.....	12	10	2	40 months.....	Isued on examination; renewable.
South Carolina.....	Professional.....	Life.....	12	10	2	40 months.....	After Sept., 1921, applicant must have had 24 weeks of professional training.
South Dakota.....	First-grade elementary.....	Life.....	9	1	13	3	Renewable.
Tennessee.....	Permanent State.....	Life.....	9	1	13	3	(a).
Texas.....	Second class.....	Life.....	9	1	13	3	(b) Holder of a State permanent primary certificate.
Utah.....	First grade.....	Life.....	9	1	13	3	(c) Holder of a valid first-grade certificate.
Virginia.....	Second class.....	Life.....	9	1	13	3	Must have completed high school and 1 year normal work or 1 year college and prescribed examination.
Washington.....	First grade.....	Life.....	9	1	13	3	Must be 19 years of age and have academic training equal to 2 years of high school. Renewable.
West Virginia.....	Second-grade elementary.....	Life.....	9	1	13	3	Must be high-school graduate and have 9 weeks' professional training.
Wisconsin.....	First-grade county.....	Life.....	9	1	13	3	(3).
Wyoming.....	Elementary, city, class A, based on examination.....	Life.....	9	1	13	3	If applicant is holder of second-grade certificate, the standings from examination for it may be transferred to first-grade certificate. Renewable.

<sup>1</sup> Discretion of local committee.

<sup>2</sup> Must have had 3 years' experience on limited elementary certificate which requires that applicant must be high-school graduate or its equivalent, have attended two sessions of summer school, and passed examination in 10 elementary, 2 new elementary subjects, and 1 professional.

<sup>3</sup> Renewable once upon successful experience and recommendation of county superintendent. Second renewal upon recommendation of county superintendent and reading of required book. After second renewal, renewable for life.

# STATE LAWS GOVERNING TEACHERS' CERTIFICATES.

States.	Number of common school subjects.	Higher and secondary subjects.							New elementary subjects.							Professional subjects.														
		Algebra.	Physic.	Literature.	Civil govern-ment.	Natural science.	History, not U. S.	Bookkeeping.	Geometry.	English classics.	Drawing.	Music.	Nature study.	Agriculture.	Manual training.	Home economics.	Physical educa-tion.	Current events.	Rural economics.	Theory and prac-tice.	Methods.	School law.	Pedagogy.	Science of edu-cation.	Theory and art of teaching.	School manage-ment.	Didactics.	Course of study.	Reading circle.	Cataloguing and use of libraries.
Alabama.....	10																													
Arizona.....	10																													
Arkansas.....	7																													
California <sup>1</sup> .....	5																													
Colorado.....	8																													
Connecticut.....	7																													
Delaware <sup>2</sup> .....	8																													
Florida.....	8																													
Georgia.....	7																													
Idaho <sup>3</sup> .....	10																													
Illinois <sup>1</sup> .....	6																													
Indiana <sup>2</sup> .....	6																													
Iowa <sup>2</sup> .....	6																													
Kansas.....	6																													
Kentucky.....	All																													
Louisiana.....	7																													
Maine <sup>1</sup> .....	8																													
Maryland.....	8																													
Massachusetts <sup>6</sup> .....	8																													
Michigan <sup>1</sup> .....	8																													
Minnesota.....	10																													
Mississippi.....	6																													
Missouri.....	8																													
Montana <sup>2</sup> .....	8																													
Nebraska <sup>1</sup> .....	9																													
Nevada.....	8																													
New Hampshire <sup>1</sup> .....	8																													
New Jersey <sup>2</sup> .....	8																													
New Mexico.....	8																													
New York.....	9																													

[illegible]

3 Subjects not enumerated, examination at discretion of local committee.  
 4 Two years' high school and some professional training prerequisite.  
 5 See State outline.  
 6 Any one of first six here named.

- High-school graduation prerequisite.
- Professional training prerequisite.
- High-school graduation and additional professional preparation prerequisite.
- Science and art of teaching.

TABLE 19.—*Suspension and revocation of certificates.*

Names of kinds of certificates.	Officer empowered to suspend or revoke.	Grounds upon which suspension or revocation may be made.	Process.
Alabama: Any certificate.....	Superintendent of education.....	Immoral conduct or unbecoming or indecent behavior.	
Arizona: Any certificate.....	State board of education.....	Unprofessional conduct or evident unfitness to teach.	
Arkansas: Any certificate.....	County examiners.....	Immoral character or evident unfitness for teaching.	30 days' notice must be given and a fair hearing to the teacher and the board of directors of the school district in which the teacher is employed.
California: Any certificate.....	State board of education or county boards of education.	Unprofessional conduct, unfitness to teach, or persistent defiance of the laws regulating the duties of teachers.	A hearing before the board and, in case of the county board of education, there must be an affirmative vote of at least 4 of the 5 members of the board. The charges must be presented to the board in writing and accused must have a fair and impartial hearing and 10 days' notice of date of trial.
Colorado: State certificates..... County certificates.....	State superintendent..... County superintendent.....	Intemperance, immorality..... .....do.....	Holder of a certificate has right to appeal to the State superintendent of schools within 30 days.
Connecticut: Any certificate.....	Examining committee.....	Incompetency to teach or to manage a school or to conform to requirements.	May be discharged by district or by committee in absence of action by the district. If improperly discharged by committee, district may compel reinstatement.
Delaware: Any certificate.....	State board of education.....	Negligence, cruelty, incompetence, or immorality.	
Florida: Any certificate.....	County or State superintendent.....	Incompetency and gross immorality.....	
Georgia: County licenses.....	County school commissioner.....	Immorality, incompetency, neglect of duty.....	The teacher has a right to appeal to the county board of education.
Idaho: State or State life certificate.....	State board of education.....	Any cause which would have prevented the issuance of such certificate if known at the time of issue.	Applicant has 30 days in which to appear before State board and show cause why certificate should not be revoked.
County certificate.....	County superintendent.....	Neglect of duty, incompetency, or immorality.....	30 days is given to appear and make appeal before State board of education.
Illinois: Any certificate.....	County or State superintendent.....	Immorality, incompetency, unprofessional conduct, or other just cause.	Applicant has the right of appeal if taken within 10 days.
Indiana: Any certificate.....	State or county superintendent.....	Incompetence, immorality, cruelty, or neglect of the business of the school.	

Iowa:	Any certificate.....	County superintendent.....	Incompetency, immorality, intemperance, cruelty, or general neglect of the business of the school, or for any cause which would have authorized or required a refusal to grant the same.
Kansas:	All certificates.....	Boards issuing.....	Immorality, gross neglect of duty, annulling of contracts, or any cause which would have justified withholding the certificate when it was granted.
Kentucky:	Any certificate.....	County superintendents.....	Incompetency, immorality, inefficiency, or other unworthiness to be a teacher.
Louisiana:	Any certificate.....	State board of education.....	Incompetence, unworthy or immoral conduct....
Maine:	Any certificate.....	State superintendent of schools.....	"Certain causes".....
Maryland:	Any certificate.....	State superintendent.....	Immorality, dishonesty, intemperance, insubordination, incompetency, or neglect of duty.
Massachusetts:	Any certificate.....	Board of education.....	Incompetent or otherwise manifestly unfitted to serve as instructor of schools.
Michigan:	Any certificate.....	State board of education.....	For causes.....
Minnesota:	Any certificate.....	County and State superintendent.....	Immoral character, failure to follow contract, inefficiency, tuberculosis, or communicable diseases.
Mississippi:	Any certificate.....	County superintendent.....	Intemperance, immoral conduct, brutal treatment of pupils.
Missouri:	Any certificate.....	County superintendents.....	Immorality, incompetence, neglect of duty, or annulling contract without the consent of the board.

County superintendent shall within 10 days transmit to such person a written statement of the charges preferred and set time and place for hearing, at which trial the teacher shall be privileged to be present and make defense. If in judgment of the county superintendent there are sufficient grounds for revocation of the certificate or diploma, he shall at once issue in duplicate an order revoking the certificate or diploma, and same shall become operative and of full force and effect 10 days after date of its issue, one copy of the order to be mailed to holder of the certificate and the other to be mailed to superintendent of public instruction. The person aggrieved by such order shall have right to appeal to superintendent of public instruction within 10 days from date of such mailing, and in case of appeal the revocation shall not be effective until same is affirmed, after full hearing, by the superintendent of public instruction. The revocation of all State certificates and life diplomas must be affirmed by the educational board of examiners after full review before becoming effective.

County board may suspend certificates and may recommend to State superintendent the revocation of them. State superintendent must give opportunity to accused to defend himself against the charges made.

Board of education must be convinced after investigation.

A hearing must be given the accused.

May be suspended on own authority or on complaint of school boards.

Accused must be given trial.

TABLE 19.—*Suspension and revocation of certificates*—Continued.

Names or kinds of certificates.	Officer empowered to suspend or revoke.	Grounds upon which suspension or revocation may be made.	Process.
Montana: Any certificate.....	State superintendent or county superintendent for 6 months.	<b>Incompetency, immorality, intemperance, physical inability, crime, neglect of duty, leaving school before expiration of term.</b>	
Nebraska: Any certificate.....	By authority granting same.....	Any cause which would have prevented their issue or for incompetency, immorality, intemperance, cruelty, neglect of duty, or crime against the State.	
Nevada: Any certificate.....	State board of education.....	Immoral or unprofessional conduct, evident unfitness for teaching, or persistent defiance of rules and refusal to obey the laws of the State, or the rules and regulations of the State board, or of the State superintendent, defining and governing the duties of teachers.	
New Hampshire: Any certificate.....	School board.....	Immoral or incompetent or who shall not conform to regulations prescribed.	No teacher shall be so dismissed before expiration of period for which said teacher was engaged without having previously been notified of the cause of such dismissal, and provided further that no teacher shall be so dismissed without having previously been granted a full and fair trial. The district shall be liable in the action of contract to any teacher dismissed in violation of the provisions to the extent of full salary for the period for which such teacher was engaged.
New Jersey: Any certificate.....	State board of examiners.....	For cause.....	<b>The accused must have a full and fair hearing and may have the services of counsel.</b>
New Mexico: Any certificate.....	State board of education.....	Incompetency, immorality, or any cause for which certificate might have been withheld if known at the time of its issue.	Commissioner of education may reconsider and reverse his action.
New York: Any certificate.....	Commissioner of education.....	Any sufficient cause.....	Teacher must be given reasonable notice of the charge, and an opportunity to defend himself. If the certificate thus annulled was granted by the commissioner of education or a former superintendent of public instruction, or is a diploma of State normal school, notice of such annulment must be sent forthwith to the commissioner of education.
Do.....	School commissioner.....	Immorality.....	

<b>North Carolina:</b> County certificates Any certificate.....	County board of education County superintendent with concurrence of a majority of the school committee. School committee.....	Immorality Any immoral or disreputable conduct or incompetency to discharge efficiently the duties of a public school teacher or persistent neglect of such duties. Sufficient charges.....	Charges must be filed in writing with county superintendent, and after hearing shall have been had before committee of the district in which such teacher is teaching, after 2 days' notice to such teacher.  Teacher must be given an opportunity to make defense.
<b>Do:</b> .....	State board of examiners.....	Any cause that would have caused it not to be granted if known at time it was granted, or for incompetency, immorality, intemperance, cruelty, crime against the laws of the State, breach of contract, refusal to perform his duty, or general neglect of work.	
<b>North Dakota:</b> Any certificate..... <b>Oklahoma:</b> Any certificate..... <b>Ohio:</b> Any certificate..... <b>Oregon:</b> Any certificate.....	State board of examiners Power granting same..... Authority issuing.....	Immorality or other grounds which would have prevented the issue of said certificates.  Immorality, intemperance, crime against the law of the State, or gross neglect of duty.	Revocation may take place upon written complaint of any county superintendent, after defendant has been given opportunity to be heard. Holder shall not be eligible to receive another teacher's certificate within 12 months after date of revocation. The aggrieved shall have right of appeal to State superintendent when certificate is revoked by county superintendent, which shall act as a stay of proceedings for a period of 30 days: to the State board of education when revocation is by State superintendent, which appeal shall act as a stay of proceedings until next regular or special meeting of said board.  Reasonable notice in writing must be given to the parties interested.  Due notice must be given and an opportunity for a hearing.  Right of appeal may be taken to the State board of education.  Sufficient evidence furnished by the county superintendent. Provided the holder is notified and given opportunity to be heard and to appeal to State superintendent and State board of education.
<b>Pennsylvania:</b> Any certificate..... Rhode Island: Any certificate..... South Carolina: Any certificate..... County certificates.....	State superintendent..... State board of education..... State board of education..... County superintendent or board of education. State superintendent..... Authority issuing.....	Incompetency, cruelty, negligence, immorality, or intemperance. Sufficient cause..... Immorality, unprofessional conduct, profligacy, or unfitness to teach. do..... Immoral conduct..... Conducting school improperly or unworthiness to instruct youth of the State, or failure to attend required institute, or abandoning contract.	
<b>Tennessee:</b> Any certificate..... <b>Texas:</b> Any certificate.....	State superintendent..... Authority issuing.....	Immoral conduct..... Conducting school improperly or unworthiness to instruct youth of the State, or failure to attend required institute, or abandoning contract.	

TABLE 19.—*Suspension and revocation of certificates*—Continued.

Names of kinds of certificates.	Officer empowered to suspend or revoke.	Grounds upon which suspension or revocation may be made.	Process.
Utah: State diplomas and State certificates. Local certificate.....	State board of education..... Board of examiners for local certificates.	Immoral or unprofessional conduct or evident unfitness for teaching. Immoral and unprofessional conduct, profligacy, intemperance, or evident unfitness for teaching.	Board of examiners for local certificates shall recommend to the board of education.
Vermont: Any certificate.....	State commissioner of education.....	Conduct or reputation incompatible with the standard of the teaching profession or incompetency to teach or inability to secure and maintain control of pupils.	Upon recommendation of the superintendent under whom teacher has last taught.
Virginia: Any certificate..... Washington: Any certificate.....	Division superintendent..... Authority issuing.....	Cause..... Immorality, intemperance, crime, or unprofessional conduct.	Subject to appeal to the State superintendent within 30 days. On complaint of any superintendent. The defendant is given opportunity to be heard.
West Virginia: Any certificate.....	State superintendent.....	Immorality, unfitness to teach, and other just causes.	
Wisconsin: Any certificate.....	State or county superintendents.....	Incompetency, immoral conduct.....	The holder must be served with written notice and given opportunity for defense. Charges must be made in writing.
Wyoming: Any certificate.....	State board of education.....	Neglect of duty, incompetence, immorality, or reprehensible conduct.	Written charges must be made and a personal hearing given.



TABLE 20.—*Minimum age requirements.—Fees required for certificates and funds to which they are credited.*

State.	Minimum age requirement.	Kind of certificate.	Fee.	Funds to which fees are credited.
Alabama.....	17 (any) <sup>1</sup> .....	Third grade..... Second grade..... First grade..... Life grade.....	\$1.00 1.50 2.00 3.00	
Arizona.....	18 (any).....	State life.....	0	
Arkansas.....	None.....	State professional. State first grade and county.	10.00 5.00 1.00	
California.....	18 (any).....	County.....	2.00	County treasurer for teachers' institute and teachers' library fund.
Colorado.....	18 (any).....	State..... State..... County.....	10.00 0 1.00	Expenses of State board. Normal institute fund.
Connecticut.....	None.....		0	
Delaware.....	20 (any).....		0	
Florida.....	None.....	Third grade..... Second grade..... First grade..... Primary..... Special..... State.....	1.00 1.50 2.00 3.00 2.50 5.00	
Georgia.....	18 (any).....	3-year professional and State 1-year high school. State life and State high school. State 5-year or re- newals.	2.00 10.00 5.00	
Illinois.....	18 (any).....	Examination or annual register- ing of county certificate.	1.00	
Indiana.....		All certificates.....	.75	} Used to pay for grading manuscripts.
Iowa.....	18 (any).....	Life..... County..... State..... Life validation.....	5.00 1.00 2.00 5.00	
Kansas.....	1st grade, 20; 2d, 3d, and tempo- rary, 18.	County.....	<sup>2</sup> 1.00 <sup>3</sup> 2.00	} \$1 of all fees collected is placed to the credit of county institute fund.
Kentucky.....	State diploma, 24; State certificate, 21; county cer- tificate, 18.	County..... State.....	3.00 4.00	
Louisiana.....	18.....	High school and first grade. Second grade..... Third grade.....	2.00 1.50 1.00	
Maine.....	17 (any).....		0	
Maryland.....	18.....		0	
Massachusetts.....	None.....		0	
Michigan.....	18.....	Male applicants..... Female applicants.....	1.00 1.50	} Teachers' institute fund. Institute fund.
Minnesota.....	1st and 2d grades, 18.  Limited 2d year, 17.	Any certificate— examination or renewal. Professional or for indorsement. Permanent profes- sional.	.50 1.00 5.00	
Mississippi.....	17 (any).....	Not stated.....	.50	
Missouri.....	None.....	All renewals and indorsements. County certificates County..... State or life.....	1.00 1.50 3.00 1.00 1.50	} Expenses of teachers' associations and teachers' meetings and grading of papers.
Montana.....	18.....		1.00	
Nebraska.....	None.....	Examination, reg- istration, re- newal, or in- dorsement. Examination for county.	1.00 1.50	} \$1 for institute and 50 cents for expenses of examination.

<sup>1</sup> Minimum age required for any certificate, 17 years.<sup>2</sup> At educational institutions.<sup>3</sup> By county examining board.<sup>4</sup> \$1 for duplication.

TABLE 20.—*Minimum age requirements.—Fees required for certificates and funds to which they are credited—Continued.*

State.	Minimum age requirement.	Kind of certificate.	Fee.	Funds to which fees are credited.
Nevada.....	20.....	High school and first-grade elementary.	0	
	18.....	All others.....	0	
New Hampshire.....	None.....		0	
New Jersey.....	18 (any).....		0	
New Mexico.....	18 (any).....	Professional life.....	10.00	
		Professional 5-year.....	5.00	
		All others.....	1.00	
New York.....	18 (any).....		(*)	
North Carolina.....	18 (any).....		0	
North Dakota.....	18 (any).....	Third and fourth grades.	2.00	
		Special and second grade.	3.00	
		First grade professional.	5.00	
Ohio.....	18 (any).....	State.....	5.00	State treasurer.
		County.....	(*)	County education fund.
Oklahoma.....	1st grade, 20.....	County.....	2.00	County normal institute fund.
	2d and 3d, 18.....	State.....	4.00	For grading manuscripts.
Oregon.....	18 (any).....	Life State.....	3.00	
		Five-year State, primary 5 year, 1 year State.	2.00	
		Temporary county Special.....	2.50	
		Renewal of State.....	3.00	
Pennsylvania.....	18 (any).....		1.00	
Rhode Island.....	None.....		0	
South Carolina.....	18 (any).....		0	
South Dakota.....	18 (any).....	Life (examination) State (examination).	10.00	
		Provisional State. First, second, third, and primary.	5.00	
Tennessee.....	18 (any).....		2.00	State professional fund.
Texas.....	16 (any).....	All examinations..	1.00	Fifty cents to institute fund; 50 cents to general State fund.
			0	If for second-grade county, the \$2 retained by examiners, and if for State certificate, \$1 is retained and \$1 forwarded to State department of education.
Utah.....	None.....		0	
Vermont.....	17 (any).....		0	
Virginia.....	18.....		0	
Washington.....	18.....	All.....	1.00	County institute fund.
West Virginia.....	18.....	Any certificate....	1.00	Fees received for examination used by county superintendent for expenses of examination. Fees received for certificates granted on graduation or credentials credited to general school fund.
Wisconsin.....	None.....	State.....	2.00	
		County.....	0	
Wyoming.....	17.....	Temporary.....	.50	Credit of certification board.
		Renewals and others.	1.00	

\* Prescribed.

\* Not stated.

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## NOTE.

The record comprises a general survey in bibliographic form of current educational literature, domestic and foreign, received during the monthly period preceding the date of publication of each issue.

The issues of the record for May and June, 1921, are combined in the present double number. Publication of the record is now suspended for the summer.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

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## PROCEEDINGS OF ASSOCIATIONS.

726. Association of colleges and secondary schools of the Southern states. Proceedings of the twenty-fifth annual meeting, Chattanooga, Tenn., December 2-3, 1920. Tulane university press, New Orleans [1921?] 114 p. 8°. (Edward A. Bechtel, secretary, New Orleans, La.)

Contains: 1. J. P. McCallie: The need of moral and religious training in school and college and how to meet it, p. 58-67. 2. G. F. Zook: The problem of teacher supply, p. 74-84. 3. A. Bezlat: Modern methods of teaching French, p. 97-110.

727. **National education association.** Addresses and proceedings of the fifty-eighth annual meeting held at Salt Lake City, Utah. July 4-10, 1920. vol. 58. Pub. by the Association, Secretary's office, Washington, D. C., 1920. 724 p. 8°. (J. W. Crabtree, secretary, Washington, D. C.)

*General sessions.*—Contains: 1. G. D. Strayer: A national program for education, p. 41-48. 2. P. P. Claxton: Adequate pay for teachers, p. 55-58. 3. Florence E. Ward: The farm woman's problems, p. 75-79. 4. T. D. Wood: The nation's duty to the health of the school children, p. 79-81. 5. G. A. Iverson: The school board's place in the educational system, p. 88-89. 6. E. O. Sisson: Definite objectives in education, p. 100-103.

*National Council of Education.*—7. H. B. Wilson: City systems, p. 113-16. 8. A. H. Chamberlain: Thrift readjustment and progress, p. 117-20. 9. Adelaide S. Baylor: The next step in the study of consolidation, p. 188-41. 10. Joseph Swain: Preliminary report on tenure of teachers, p. 147-54. 11. A. H. Chamberlain: The salary situation with remedies, p. 154-58. 12. Harlan Updegraff: Participation of teachers in management, comparison of theories, and suggested study for their evaluation, p. 180-84.

*Department of Kindergarten Education.*—13. Jeannette Esakiels: Kindergarten makes adequate provision for the children's physical development, p. 193-96. 14. Individual differences in kindergarten children, p. 196-202.

*Department of Secondary Education.*—15. J. O. Engleman: The high school's part in the making of a greater America, p. 209-12. 16. Marie Gule: Some problems of the junior high school, p. 217-21. 17. H. M. Shafer: The six-year unified high school versus the senior and junior high schools, p. 221-26.

✓ *Department of Higher Education.*—18. G. F. Zook: The emergency in higher education, p. 231-35.

*Department of Rural Education.*—19. M. S. Pittman: Zone plan of supervision, p. 289-92.

*Department of Classroom Teachers.*—20. Elizabeth A. Woodward: Brief view of one year's experience in New York state with classes for non-English-speaking women, p. 345-48. 21. Sara H. Fahey: Teacher's salary as a factor in establishing caste, p. 351-55.

*Library Department.*—22. J. D. Wolcott: Some plans in operation for stimulating home reading by school children, p. 383-85. 23. Irma M. Walker: Present status of the high-school library in the United States, p. 387-90.

*Department of Superintendence.*—24. R. W. Himelick: Current tendencies and problems in education, p. 424-28. 25. A federal department of education: I. W. P. Burris, p. 444-49. II. W. C. Bagley, p. 449-58. 26. L. D. Coffman: Teachers' associations, p. 458-65. 27. A. L. Hall-Quest: Supervised study in the grades, p. 502-4. 28. W. D. Lewis: Teaching citizenship, p. 531-35. 29. Teachers' salaries and salary schedules in the United States, 1918-1919, prepared for the Commission on the emergency in education by E. S. Evenden, p. 537-702.

## EDUCATIONAL HISTORY AND BIOGRAPHY.

728. **Burton, H. E.** The elective system in the Roman schools. *Classical journal*, 16: 532-35, June 1921.

Historical sketch of the elective system in the schools of Rome in the first century after Christ.

729. **Wolff, Maurice.** Napoléon I<sup>er</sup>, Fontanes et l'université impériale. *Revue universitaire*, 30: 347-55, May 1921.

## CURRENT EDUCATIONAL CONDITIONS.

### GENERAL AND UNITED STATES.

730. **Coffman, Lotus D.** The reconstruction of American education. *Ohio teacher*, 41: 355-58, April 1921.

Answers such questions as How can public education be best financed? Shall we have more or less knowledge; higher or lower moral standards?



731. Davidson, P. E. The socialists on equality of educational opportunity. *School and society*, 13: 396-409, April 2, 1921.

Author gives the opinions of a number of socialists regarding how equality of educational opportunity may best be obtained.

732. Henderson, Hanford. The new education. *North American review*, 213: 644-55, May 1921.

Criticises modern education under what he calls "the sophistries of school practice growing out of that phrase so dear to modernist ears 'the rights of thy child,' and to the incomplete and fragmentary culture which colleges offer under the pseudo-liberalism of the elective system." Emphasizes the advantages of the prescribed course.

733. Kirkpatrick, W. H. The demands of the times upon our schools. *Teachers college record*, 22: 127-136, March 1921.

Education to meet its full duty must order itself in relation to the social group as a whole.

734. Miller, Paul G. School progress in Porto Rico. *Survey*, 46: 216, May 14, 1921.

Statistics based on the three Federal censuses of 1899, 1910, and 1920, by the commissioner of education of Porto Rico.

735. Pearce, J. E. The reorganization of education. *Southwestern school review*, 1: 5-8, April 1921.

The author does not advocate putting things out of the school curriculum, but would put a different emphasis on many subjects. Speaks of the over-emphasis upon languages and the under-emphasis upon science.

736. Reisner, E. H. National education in an international world. *School and society*, 13: 563-72, May 14, 1921.

After a discussion of the development of the systems of national education in France and Prussia, the author goes on to describe how education can best serve toward and in the international world.

737. Stetson, Fred L. and Almack, John C. County school systems of Oregon, ranked in the order of their efficiency under measurements used by the Russell Sage foundation. Salem, Oreg., State printing department, 1921. 26p. graphs, tables. 8°.

738. Stevenson, J. J. Education and unrest. *School and society*, 13: 421-27, April 9, 1921.

Discusses the problems which now confront education.

#### FOREIGN COUNTRIES.

##### *Latin America.*

739. Brainerd, Helen L. Latin-American students, the nation's guests. *Bulletin of the Pan American union*, 52: 367-71, April 1921.

740. Shoens, George T. Report on the public school system, including a survey and recommendations. Managua, Nicaragua, Tipografía Alemana de C. Heuberger [1920] 83p. 8°. (Republic of Nicaragua, ministry of public instruction, office of the educational adviser)

##### *France.*

741. Derôme, Juvénal. L'enseignement des notions scientifiques à l'école primaire élémentaire, *Revue pédagogique*, 78: 235-64, 327-56, April, May 1921.

742. Hardy, Georges. L'éducation française au Maroc. *Revue de Paris*, 28: 773-88, April 15, 1921.

743. **Institute of international education.** Opportunities for higher education in France. New York, 1920. cover-title, 144p. 12°.

CONTENTS: The French system of public instruction.—The American student in France.—The French universities.—Other institutions of higher learning.—Descriptions of individual institutions.

744. **Machat, F.** La natalité en France et les éducateurs. I.—La question de la dépopulation, doit-elle et peut-elle être traitée à fond dans les écoles? Éducation, 12: 639-47, June 1921.

*Germany.*

745. **Gaudig, Hugo.** Die deutsche schule innerhalb der nationalen kulturentwicklung der zukunft. Zeitschrift für pädagogische psychologie und experimentelle pädagogik, 22: 1-5, January-February 1921.
746. **Sauepe, Walther.** Das wertproblem in seiner bedeutung für die innere organisation des höheren schulwesens. Gedanken zur reform von lehrplan und lehrfach. Zeitschrift für pädagogische psychologie und experimentelle pädagogik, 22: 87-103, March-April 1921.

*Italy.*

747. **McKenzie, Kenneth.** Opportunities for higher education in Italy. New York, 1921. 61p. 8°. (The Institute of international education, 2d. ser. Bulletin no. 2)

*Switzerland.*

748. **Widemer, Marie.** Schools and school life in Switzerland. Progressive teacher, 27: 13-18, May 1921.
- An illustrated account of Swiss schools.

*Czechoslovakia.*

749. **Lasker, Bruno.** [School system of Prague.] In Prague's window to the west. Survey, 46: 343, June 11, 1921.

*India.*

750. **Vander Schueren, T.** The education of Indian boys of the better or upper class families. Asiatic review, n. s. 17: 47-63, January 1921.
- A paper read at a meeting of the East India association, in London, October 25, 1920, by Father T. Vander Schueren, S. J. Discussion on the paper, p. 67-77.

*Far East.*

751. **Burgess, John S.** New tools in old China. Survey, 46: 238-39, May 21, 1921.
- Discusses the efforts in China to popularize the mandarin or spoken language in written form. This intellectual movement, inaugurated in 1919, has been called the Chinese renaissance.
752. ———. Opinion in China. Survey, 46: 108-10, April 23, 1921.
- Influence of teachers and students in the colleges and high schools of Peking in advancing democracy in China.

753. Dewey, John. New culture in China. *Asia*, 21: 581-86, 642, July 1921. illus.

Describes the "student" movement in China for a new culture, in which what is best in western thought is to be freely adopted—but adapted to Chinese conditions, employed as an instrumentality in building up a rejuvenated Chinese culture. Dr. Dewey thinks the new culture movement provides one of the firmest bases for hope for the future of China.

754. Fleming, D. J. Some aspects of the Philippine educational system. *International review of missions*, 10: 249-59, April 1921.

### EDUCATIONAL THEORY AND PRACTICE.

755. Autin, Albert. *Autorité et discipline en matière d'éducation*. Avec une préface de M. Jules Payot. Paris, F. Alcan, 1920. 136p. 12°. (*On cover: Bibliothèque de philosophie contemporaine*)

Bibliographie: p. 131-34.

756. Bernard, Paul. Comment on devient un éducateur; à travers la vie scolaire. Paris, F. Nathan, 1920. 382p. 12°.

757. Charters, W. W. Educational aims, ideals, and activities. *Journal of educational research*, 3: 321-25, May 1921.

Says that those who advocate social efficiency as the aim of education should determine: "First, the ideals of socially efficient individuals; second, the fundamental physical and mental activities carried on by the people of the United States; and third, by a process of laborious analysis to discover exactly what important specific activities shall be taught and what ideals shall control in the performance of each."

758. Dewey, Evelyn. The new education: I. Its trend and purpose. II. The modern school. *Nation*, 112: 654-55, 684-85, May 4, 11, 1921.

First article discusses the trend and purpose of modern education; the adaptation of the school to real life, etc. Second article develops the theme of reorganization of education so that every child shall have "the real experiences that are necessary to enable him to be an efficient, independent, and creative member of society."

759. Garnett, James Clerk Maxwell. Education and world citizenship; an essay towards a science of education. Cambridge, At the University press, 1921, x, 515 p. diagrs., fold. chart. 8°.

In the light of modern knowledge of physiological psychology, this study attempts to formulate a few simple and general principles of education, and so to approach nearer to a science of education. The writer holds that a perfect system of education must be world-wide; or, at least, that in the interests of human progress, the ultimate aim of education should be the same the world over. The book is divided into three parts: (1) Introductory and historical; (2) The aim of education; (3) A system of education designed to achieve the aim just set forth.

760. Gerould, Katharine Fullerton. What constitutes an educated person today? *Atlantic monthly*, 127: 744-48, June 1921.

According to the writer, the minimum for an educated person is ability to use one's native language correctly; a general notion of the problems of the race, and an idea of how the race has tried to solve some of them—either mental, spiritual, political or physical; also some degree of orientation in time.

761. Poitral, L. *Pédagogie pratique; à l'usage des instituteurs et des candidats au certificat d'aptitude pédagogique*. Paris, A. Colin, 1921. 313 p. 12°.

762. **Richards, Albertine A.** Motive in education. *Pedagogical seminary*, 28: 60-72, March 1921.

Concludes that the child who is not motivated may acquire a rudimentary education, but he has also learned to be satisfied with an occupation which does not enlist all his powers. Deprecates the thwarting of desire and the constant interruption of self-selected activity in the education of children.

763. **Snedden, David.** Specific varieties of mental discipline as objectives of school education. *Educational administration and supervision*, 7: 255-66, May 1921.

Says that educators should endeavor to disentangle from our contemporary vocational, civic, and cultural life those objectives of mental discipline of importance to our civilization which can be made objectives of school education. Discusses the requirements for vocations, civic life and culture.

764. **Vial, Francisque.** *La doctrine d'éducation de J. J. Rousseau.* Paris, Delagrave, 1920. 208 p. 12°.

765. **Wells, H. G.** The salvaging of civilization; the probable future of mankind. New York, The Macmillan company, 1921. 199p. 12°.

In this book the author outlines measures of educational reconstruction tending, in his belief, toward the establishment of a wide-thinking, wide-ranging education upon which a new world order may be based.

766. **Yeomans, Edward.** Shackled youth; comments on schools, school people, and other people. Boston, The Atlantic monthly press [1921] 138p. 12°.

### EDUCATIONAL PSYCHOLOGY; CHILD STUDY.

767. **Adams, Henry Foster.** The mythology and science of character analysis. *Scribner's magazine*, 69: 569-75, May 1921.

768. **Briffault, Robert.** *Psyche's lamp; a revaluation of psychological principles as foundation of all thought.* London, G. Allen & Unwin, ltd.; New York, The Macmillan company [1921] 240p. 12°.

769. **Keener, E. E.** Value of fighting instinct. *Southern school journal*, 32: 12-17, May 1921.

A review of the situations which arouse the fighting instinct and how the teacher can deal with some forms of its expression.

770. **Paton, Stewart.** Human behavior in relation to the study of educational, social, and ethical problems. New York, C. Scribner's sons, 1921. 465 p. 8°.

771. **Payot, Jules.** *Le travail intellectuel et la volonté, suite à "L'éducation de la volonté".* Paris, F. Alcan, 1921. 272p. 8°. (*On cover: Bibliothèque de philosophie contemporaine*)

772. **Pfister, Oscar.** *La psychanalyse au service des éducateurs. Conférences faites à un cours de vacances de la Société pédagogique suisse; traduites par les soins de Pierre Bovet.* Berne, E. Bircher, 1921. vii, 208p. 8°.

773. **Tucker, D. Leslie.** Psychoanalysis and education. *Journal of education and School world* (London) 53: 281-83, May 2, 1921.

Says that "the psychoanalyst joins forces with all who preach vocation, and that every individual must find the one vocation to which his own psychology calls him."

## EDUCATIONAL TESTS AND MEASUREMENTS.

774. **Alexander, Carter.** Presenting educational measurements so as to influence the public favorably. *Journal of educational research*, 3: 345-58, May 1921.

Says that measurement workers are prepared as are no other schoolmen to present educational needs to the public. Discusses methods of publicity.

775. **Allen, Elbert.** Graphical representation of grades of high school pupils. *School review*, 29: 467-71, June 1921.

Describes a set of three cards upon which test grades may be graphically represented, as used in the department of mathematics in the University high school of the University of Chicago.

776. **Bracewell, Ray H.** The Freeman-Rugg general intelligence tests as an aid to economy in school administration. *School review*, 29: 460-66, June 1921.

Effect of tests in the Burlington high school, Burlington, Iowa. For the purpose used they have, says the writer, "a high degree of reliability."

777. **Bright, I. J.** The intelligence examination for high school freshmen. *Kansas teacher*, 13: 7-11, May 1921.

Concludes that the Terman group intelligence examination is well adapted to high-school freshmen, and the application of intelligence tests to first-year high-school classes is practicable and necessary.

778. **Buckingham, B. R.** Intelligence and its measurement: a symposium. *Journal of educational psychology*, 12: 271-75, May 1921.

Other contributions to the symposium are contained in the April issue. The writer discusses the nature of intelligence and its measurement.

779. **Chassell, Clara F. and Laura M.** A survey of the three first grades of the Horace Mann school by means of psychological tests and teachers' estimates, and a statistical evaluation of the methods employed. *Journal of educational psychology*, 12: 243-52, May 1921.

Part 2 of an article published in the February number. It records "the correlations obtained between the various measures, evaluating them by comparing them with a composite of all the measures utilized, and giving a detailed account of the statistical methods employed in the conversion of these measures into mental ages."

780. **Douglass, Harl Roy.** The derivation and standardization of a series of diagnostic tests for the fundamentals of first year algebra. [Eugene, Or.] The University, 1921. 48p. 8° (*On cover*: University of Oregon publication, vol. 1, no. 8)

Bibliography: p. 47-48.

781. **Freeman, Frank N.** The bearing of the results of mental tests on the mental development of the child. *Scientific monthly*, 12: 558-76, May 1921.

Discusses age progress in particular intellectual functions and in general or composite functions; relation of age progress to individual differences, correspondence between physical and mental development, etc.

782. ———. The scientific evidence on the handwriting movement. *Journal of educational psychology*, 12: 253-70, May 1921.

The method used in this test consisted of photographing the movement of the hand and arm by a kinesiographic camera.

783. **Gates, Arthur I.** The true-false test as a measure of achievement in college courses. *Journal of educational psychology*, 12: 276-87, May 1921.  
Discusses the usefulness of intelligence and educational tests., etc.
784. **Haggerty, M. E.** Recent developments in measuring human capacities. *Journal of educational research*, 3: 241-53, April 1921.  
Reviews the accomplishments of the year in mental measurements; the extension of intelligence examinations in public schools; the development of rating scales for teachers and pupils, etc. Address of the retiring president of the National association of directors of educational research, March 3, 1921.
785. **Harvey, N. A.** A mental survey of the training school. *American school-master*, 14: 176-84, May 1921.  
A comparison of the Otis tests and the Army tests.
786. **Kelley, Truman L.** The reliability of test scores. *Journal of educational research*, 3: 370-79, May 1921.  
An endeavor to show the need of a standardized procedure in measuring the reliability of the tests which are in use.
787. **Malherbe, E. G.** New measurements in private schools. *Survey*, 46: 272-73, May 28, 1921.  
Describes a survey of the Foxwood school, Flushing, L. I., which has recently been reorganized. The pupils have been classified on scientific lines.
788. **Monroe, Walter S.** Report of division of educational tests for '19-20. Urbana, Illinois, The University of Illinois [1921] 64p. 8°. (Bureau of educational research. Bulletin no. 5 [University of Illinois bulletin, vol. xviii, no. 21])
789. **Peterson, Joseph.** Methods of interpreting results in the Cleveland arithmetic tests. *Journal of educational research*, 3: 280-92, April 1921.
790. **Pressey, S. L.** Scale of attainment no. 2; an examination for measurement in history, arithmetic, and English in the eighth grade. *Journal of educational research*, 3: 359-69, May 1921.  
Presents an examination for measuring achievement in the "promotion" subjects, in the last year of the elementary school, and for comparing graduation standards.
791. **Town, Clara H.** Analytic study of a group of five and six-year-old children. Iowa City, The University [1921] 87p. incl. tables, diagrs. 8°. (University of Iowa studies in child welfare vol. I, no. 4. [University of Iowa studies, 1st ser., no. 48. May 1, 1921])
792. **West, Roscoe L.** An experiment with the Otis group intelligence scale in the Needham, Massachusetts, high school. *Journal of educational research*, 3: 261-68, April 1921.  
Says there was a very definite tendency for the youngest pupils to make the best records; and that there was a fairly high correlation between the Otis test and the teachers' marks.
793. **Witham, Ernest C.** Rating the general appearance of primary number work. *Journal of educational research*, 3: 273-79, April 1921.

### SPECIAL METHODS OF INSTRUCTION.

794. **Dyer, W. P.** Some standards for home-project work in agriculture. *School review*, 29: 451-59, June 1921.  
Home-project work of pupils who have received agricultural instruction in Smith-Hughes departments of high schools, 1919-20.

795. Grinstead, W. J. The project method in beginning Latin. *Classical journal*, 16: 308-308, April 1921.
796. Landsittel, F. C. Giving effectiveness to observation work. *Educational administration and supervision*, 7: 284-90, May 1921.  
 Advocates the following order of activities: (1) Setting the problem, with development of principal leads to its solution; (2) individual study; (3) brief group meeting preparatory to observation; (4) observation; (5) final group study and individual written report.
797. Lasher, G. S. The project method: giving purpose to English composition. *Illinois association of teachers of English. Bulletin*, 13: 1-14, April 1, 1921.  
 Illustrates by concrete examples how projects arise and are worked out.
798. Lott, H. C. Teaching by the project method. *American schoolmaster*, 14: 185-191, May 1921.

## SPECIAL SUBJECTS OF CURRICULUM.

## READING.

799. Gilliland, A. R. A photographic method for studying reading. *Visual education*, 11: 21-26, 55, February 1921.  
 The purpose of the article is to point out some problems of reading and describe how they have been solved.
800. Gray, W. S. The diagnostic study of an individual case in reading. *Elementary school journal*, 21: 577-94, April 1921.  
 An investigation of a fourth-grade boy who was unable to read effectively.
801. Hawley, William E. The effect of clear objectives on the teaching of reading. *Journal of educational research*, 3: 254-60, April 1921.  
 Study based on tests made in the fall of 1919 at the Francis Parker school. The Monroe, Courtis, and Gray tests were used.
802. Horn, Ernest. A constructive program in silent reading. *Journal of educational research*, 3: 336-44, May 1921.  
 Discusses constructive programs in speed, organization, and remembering.
803. Kirby, Thomas J. A study of silent reading in Western Pennsylvania . . . Pittsburgh, Pa., Press of Smith bros. co., inc. [1920] 37p. incl. tables, diagrs. 8°. (*University of Pittsburgh bulletin. Announcement series*, vol. 16, no. 17)  
 At head of title: University extension, 1920-1921.
804. Lewis, W. D. and Rowland, A. L. Silent reading. *Southern school journal*, 32: 17-21, May 1921.  
 "Silent reading is an almost universal process of thought gathering by civilized man."

## ENGLISH AND COMPOSITION.

805. Barnes, Harold. Teaching children to write verse. *Normal instructor and primary plans*, 30: 28, 71, May 1921.  
 An effort to write verse develops in the child a constructive, creative imagination.
806. Brown, Hollo Walter, ed. The writer's art; by those who have practiced it. Cambridge, Harvard university press, 1921. xv, 357p. 12°.
 Twenty-eight essays chosen from the writings of successful authors, on the technique of composition. Among these authors are William Hazlitt, Sidney Dobell, Frank Norris, Henry James, Joseph Conrad, Guy de Maupassant, and Sir Arthur Quiller-Couch.

807. **Certain, C. C.** By what standards are high school pupils promoted in English composition? *English journal*, 10: 305-15, June 1921.

Endeavors to show the extent to which experienced teachers of English may vary in their opinions as to a satisfactory "passing standard" in composition for each of the four grades of high school.

808. **Hetel, Margaret H.** Value of English in secondary schools. *Education*, 41: 673-80, June 1921.

809. **Ryffel, Grace H.** Group projects in upper-grade composition. *English journal*, 10: 337-40, June 1921.

Describes the work of a "junior arts and crafts exposition" in the Wyman school, St. Louis, Mo.

810. **Smith, Homer J.** English in part-time classes. *English journal*, 10: 247-55, May 1921.

Discusses the aims of part-time classes; students, groups, and courses; and chances to serve, etc.

811. **Williams, Stanley T.** The parent of schoolboy novels. *English journal*, 10: 241-46, May 1921.

Says that Tom Brown's school days is not only the parent of all schoolboy novels, but the best of its kind. A copy is still given to every boy at Rugby.

#### LITERATURE.

812. **Downey, June E.** Have you any imagination?—Here's a test. *Independent*, 447-48, 468-69, April 30, 1921.

Describes a test for literary imagination, and the ability to write fiction.

813. **Skinner, Margaret M.** Five weeks' intensive study of the drama with high school seniors. *English journal*, 10: 268-73, May 1921.

Describes an experiment in the high school of the University of Wisconsin.

#### ANCIENT CLASSICS.

814. **Brelet, Henri.** Vers la véritable culture classique. *Revue internationale de l'enseignement*, 41: 99-116, March-April 1921.

On classical education in France with reference to the plan of studies of 1902.

815. **Donnelly, Francis P.** Keep the classics but teach them. *America*, 25: 179-81, June 11, 1921.

Says that if the art of self-expression is the best test of education, then Greek literature, the finest masterpiece of self-expression, should remain, and Greek literature should be taught, as for centuries it was taught, with interpretation and translation furnished to the student, leaving the time of training to be devoted not to special sciences proper to the university, but to the general training in appreciation and expression.

816. **Stafford, Russell H.** The humanities in modern education. *Classical journal*, 16: 477-87, May 1921.

A plea for the classics, history and ethics in the modern curriculum.

#### MODERN LANGUAGES.

817. **Cline, E. C.** A theory and a foreign language course. *Modern language journal*, 5: 435-43, May 1921.

Discusses the foreign language work in the junior high school of Richmond, Ind.

818. **Morgan, B. Q. and Kerster, James.** Bibliography of modern language methodology in America for 1919. *Modern language journal*, 5: 402-5, April 1921.



819. **National teachers' seminary, Milwaukee, Wis.** Monatshefte für deutsche sprache und pädagogik . . . Schriftleiter: Max Griebisch. Jahrbuch, 1920. Milwaukee, Wis., National teachers' seminary [1921] 72p. 8°.
820. **Ogden, R. M.** The future of modern language in the high school. Modern language journal, 5: 353-64, April 1921.  
 Contends that a continued decline in support and interest in modern languages may be expected if the standards of efficiency in teaching such studies are not kept at a high level.
821. **Whitney, Marian P.** Random notes of a modern language teacher in Europe. Modern language journal, 5: 429-34, May 1921.  
 Notes on French, Italian, German, Czech, and Norwegian schools; and methods of teaching foreign languages.

## MATHEMATICS.

822. **Brooks, Florence M.** A reorganized course in junior high school arithmetic. Mathematics teacher, 14: 179-88, April 1921.  
 The course described was tried out in the seventh and eighth-grade classes of Fairmont junior high school, Cleveland, Ohio, with satisfactory result. The plan is to present, as one unit, the cumulative business ideas which come under the heading, "The application of percentage."
823. **Brown, Ernest, W.** The history of mathematics. Scientific monthly, 12: 385-413, May 1921.
824. **Elective courses in mathematics for secondary schools.** Mathematics teacher, 14: 161-70, April 1921.  
 A preliminary report by the National committee on mathematical requirements of the National council of teachers of mathematics.
825. **Kinney, J. M.** The function concept in first year high school mathematics. School science and mathematics, 21: 541-54, June 1921.  
 Gives specific examples employed in developing the function concept.
826. **Myers, G. W.** Class exercise types in high school mathematics, with norms for judging them. School science and mathematics, 21: 535-40, June 1921.  
 Discusses six of the standard types of class exercise. In a future paper the writer will treat the problem, the topic, the application, the test, the research, and the appreciation types of class exercise.
827. **National committee on mathematical requirements.** Terms and symbols in elementary mathematics. Mathematics teacher, 14: 107-8, March 1921.  
 Preliminary report of the committee. "So far as reasonable," says the report, "the terms used should be *international*. This principle excludes the use of all individual efforts at coining new terms except under circumstances of great urgency."
828. **Remarks on the report of the National committee on mathematical requirements on college entrance requirements.** Mathematics teacher, 14: 137-42, March 1921.  
 Criticisms by E. R. Hedrick, p. 137-39; H. D. Gaylord, p. 139-42.
829. **Smith, David E.** Certain mathematical ideals of the junior high school. Mathematics teacher, 14: 124-27, March 1921.  
 Linking up the mathematics of the junior high school with the problems of real life.

## SCIENCE.

830. Hopping, Aleita. Organization of biology and related sciences in city high schools. School science and mathematics, 21: 463-72, May 1921.

Study based on questionnaire sent to academic high schools in some of the larger cities of the United States. Says there is a very marked tendency toward placing biology in the second or higher school years.

831. Paucot, René. Le rôle des sciences dans l'éducation. Paris, A. Colin. 1920. 255 p. 12°.

832. Watson, Charles H. A plan for teaching the "principle of work" according to the psychological order. School science and mathematics, 21: 428-36, May 1921.

Describes an experiment tried by the writer with a class in physics, at the University of Kansas training school.

## NATURE STUDY.

833. Alburtis, Susan S. How school children study trees. American forestry, 27: 291-98, May 1921. illus.

Shows how the children of the sixth, seventh, and eighth grades of the Washington, D. C., schools studied trees, in their recent campaign for a National tree, inaugurated by the American forestry association.

## GEOGRAPHY.

834. Branom, Mendel E. and Branom, Fred K. The teaching of geography; emphasizing the project, or active, method. Boston, New York [etc.] Ginn and company [1921] viii, 292p. 12°.

835. Miller, Émile. Pour qu'on aime la géographie . . . Montreal, G. Du-  
charme, 1921. 242p., 3 l. 12°.

836. Whitbeck, B. H. Thirty years of geography in the United States. Journal of geography 20: 121-28, April 1921.

Presidential address given before the National council of geography teachers, Chicago, December 29, 1920.

## HISTORY.

837. Dowell, E. S. Method of history instruction used in the Bucyrus high school. Ohio history teachers journal, March 1921, p. 237-45. Bulletin no. 21.

The method discussed is an attempt to improve the technique of history instruction.

838. Kelsey, R. W. History teaching in Germany. Historical outlook, 12: 153-57, May 1921.

Discusses the effects of the war on teachers and the teaching of history in Germany. Gives a syllabus of courses in modern history in Germany universities. Supplemented by a bibliography.

839. Knowlton, Daniel C. Syllabus for modern history in tenth grade. Historical outlook, 12: 165-84, May 1921.

Part 4 of the report of the Committee on history and education for citizenship. The work of Grades X and XI is to constitute a minimum requirement in history for all graduates of the four-year high school. Bibliography: p. 183-84.

840. Schmitt, B. E. Historical study in English universities. Historical outlook, 12: 109-13, April 1921.

For the benefit of teachers and students of history in America, this article gives some account of the opportunities afforded by the English universities.

841. **Simpson, Mabel E.** Supervised study of history. *Journal of the New York state teachers' association*, 8: 81-86, April 1921.

How best to adjust educational content and procedure to the ability of the learner of history.

#### MUSIC.

842. **Music teachers' national association.** Papers and proceedings . . . Forty-second annual meeting, Chicago, December 29-31, 1920. Hartford, Conn., Pub. by the Association, 1921. 260p. 8°. (Robert G. McCutchan, secretary, DePauw university, Greencastle, Ind.)

Contains: 1. C. H. Farnsworth: How music educates, p. 23-33. 2. K. W. Gehrkens: The music supervisor of the future, p. 34-43. 3. C. H. Miller: Music in the grade schools of the United States, p. 44-54. 4. Hollis Dann: Duties and responsibilities of the state towards music in the public schools, p. 65-67. 5. P. W. Dykema: Relation of school and community music, p. 78-88.

843. **Earhart, Will.** Essential factors in musical education. *Chicago schools journal*, 3: 231-36, April 1921.

Reprinted from the *Music bulletin*.

844. **Manchester, Arthur L.** Practical music and the college curriculum. *Musical quarterly*, 7: 252-60, April 1921.

A plea for practical music as a part of the college curriculum on account of its value as an educational factor.

845. **Zeiner, E. A. J.** Can music be made a live subject in a high school for boys? *Bulletin of high points*, 3: 5-7, May 1921.

The author shows how the study of music can be made popular with boys and how they can be encouraged to sing.

#### ART.

846. **Hartrick, A. S.** Drawing; from drawing as an educational force to drawing as an expression of the emotions. London, I. Pitman & sons, ltd., 1921. 102p. plates. 12°.

847. **Mackaye, Percy.** University fellowships in creative art. *Forum*, 65: 590-99, June 1921.

Discusses an experiment initiated by President R. M. Hughes in Miami university, Oxford, Ohio. The basic idea of the fellowship is the desire of the university to be instrumental in creating art and literature, not simply teaching them.

848. **Quénieux, Gaston.** L'art à l'école. *Éducation*, 12: 538-45, 577-87, April, May 1921.

849. **Taylor, Stewart.** Clay modelling for schools; a suggestive course for teachers of modelling and for students. London, I. Pitman & sons, ltd., 1921. 139p. front., illus. 12°. (Pitman's handwork series.)

#### ELOCUTION.

850. **Brick, Adolph H.** A graphic interpretation of the proposition for debate. *Quarterly journal of speech education*, 7: 149-57, April 1921.

851. **Camp, Pauline B.** Speech treatment in the schools of Grand Rapids, Mich.; a report of cases. *Quarterly journal of speech education*, 7: 120-38, April 1921.

852. **Collins, G. Rowland.** Problems in teaching debate. *Quarterly journal of speech education*, 7: 261-71, June 1921.

853. **Flemming, Edwin G.** An elementary college course in speaking. *Quarterly journal of speech education*, 7: 189-212, June 1921.

Outlines a course for a class limited to 18 students.

854. Merry, Glenn N. Research in speech education. Quarterly journal of speech education, 7: 97-108, April 1921.

Report of the research committee of the National association of teachers of speech, read at the Cleveland meeting, December 1920. The inquiry included speech correction, voice science, theory of expression, speech composition, history of oratory, dialects, reading and dramatic production, and methods.

855. Whitmire, Laura G. The class play. Quarterly journal of speech education, 7: 189-48, April 1921.

Discusses the subject of high school dramatics, with emphasis on the problem of the senior play; how to conduct rehearsals, stage management, etc.

#### DRAMATICS.

856. Bullowa, Alma M. Pantomime: its use in the high school. Quarterly journal of speech education, 7: 213-20, June 1921.

857. Platt, Agnes. Practical hints on training for the stage. London, S. Paul & co., 1920. 128p. 16°.

858. Rodigan, Mary V. Dramatics in the high school. English journal, 10: 316-26, June 1921.

Says that dramatics is "the laboratory of self-analysis and self-development"—that is to say, a high school course devoted to the special study of the theatre and of the drama. Gives suggestions for a two-year course in dramatics.

#### SAFETY.

859. Payne, E. G. Safety instruction. In St. Louis, Missouri. Board of education. Annual report, 1920. p. 90-103.

Instruction in accident prevention must be real education and should develop controls within the children themselves.

#### KINDERGARTEN AND PRIMARY SCHOOL.

860. Pavlovitch, Milivoie. Le langage enfantin; acquisition du serbe et du français par un enfant serbe. Paris, H. Champion, 1920. 203p. 8°.

861. Spirito, Ugo. L'errore fondamentale del metodo Montessori. Rivista pedagogica, 14: 37-47, January-February 1921.

862. Stockton, James L. Infant education. Education, 41: 617-23, June 1921.

Says that organized education, physical and mental, should begin with "the birth of the child; that in this early time the child should remain in the home under the care of its parents, but that parents should be assisted by the agents of society in the persons of visiting physical and pedagogical nurses." Work of the infant school in conjunction with the home.

#### RURAL EDUCATION.

863. Conference on rural education, State normal school, Worcester, Mass. Ninth annual conference, 1921. Education, 41: 549-609, May 1921.

Contains: 1. W. B. Aspinwall: Strengthening the rural community through the public school and allied agencies, p. 549-53. 2. A. W. Gilbert: Cooperative relations of the community and the rural school, p. 557-61. 3. Mrs. Irene W. Landers: Can we educate rural agencies to believe in and to practice cooperation with teachers? p. 562-70. 4. Payson Smith: Rural leadership—what shall it be in the future? p. 571-76. 5. Joseph Lee: Play and the ultimates, p. 577-87. 6. C. M. Gardner: Helping young people to help themselves—the Grange method and its results, p. 588-98. 7. C. A. Eastman: What can the out-of-doors do for our children, p. 599-605.

864. **Frost, Norman.** A comparative study of achievement in country and town-schools. New York, 1921. 70 [1] p. incl. tables. 8°. Thesis (Ph. D.)—Columbia university, 1921.

CONTENTS: Previous objective studies of achievement in country schools.—Purpose and scope of the present study.—Achievement measured by the Trabue language scales.—Achievement measured by the Courtis standard research tests in arithmetic series B.—Achievement measured by the Thorndike silent reading scale Alpha 2.—Summary and conclusions.

865. **Gregg, Rachel E.** Rural school standards. Virginia teacher, 11: 123-28, May 1921.

## SECONDARY EDUCATION.

866. **Davis, C. O.** The North central association. School review, 29: 444-50, June 1921.

Discusses the work of the North central association of colleges and secondary schools in accrediting secondary schools.

867. **Richardson, Myron W.** Making a high school program. Yonkers-on-Hudson, New York, World book company, 1921. vii, 27 p. fold. charts. 12°. (School efficiency monographs)

A clear exposition of the principles governing program making in high schools generally.

868. **Simmonds, Frank W.** Six-year high school in Lewiston (Idaho). Educational administration and supervision, 7: 291-97, May 1921.

869. **Sumstine, D. R.** The high school problem. Pennsylvania school journal, 69: 465-70, May 1921.

Given before the sixteenth annual convention of the High school department of the Pennsylvania state educational association.

## TEACHER TRAINING.

870. **Aspinwall, William B.** The value of student-teaching in a teacher-training course, as judged by graduates of one, two, three, and four years' experience. Educational administration and supervision, 7: 267-73, May 1921.

Says that student teaching is one of the most valuable parts of the teacher-training course.

871. **Charters, W. W.** The improvement of college teaching. School and society, 13: 494-97, April 23, 1921.

Courses in college teaching offered by Carnegie Institute of technology.

872. **Colorado. State normal school, Greeley.** Sections three, four, and five of the educational survey of Colorado state teachers college. III. Entrance and graduation requirements. IV. Teachers' qualifications, salaries, and total load, student load. V. Accounting and costs. Greeley, Col., The board of trustees, 1921. 60p. 8°. (Colorado. State teachers college bulletin ser. XX, no. 9, December, 1920.)

873. **Hertzog, Walter S.** A budget system for normal schools. Educational administration and supervision, 7: 274-83, May 1921.

Emphasizes the value of a budget system, and gives standards for budget items.

## TEACHERS' SALARIES AND PROFESSIONAL STATUS.

874. Boas, George. What do teachers know? Atlantic monthly, 127: 666-69, May 1921.

A rejoinder to Professor West's article on what students do not know, which appeared in the March Atlantic. Says the issue is the education, not of the student, but of the teacher. In order to have intelligent students; we must have intelligent teachers. It should be recognized, also, that intelligence does not come from the mere acquisition of facts.

875. Eaton, Emily. Co-operative living for teachers. Normal instructor and primary plans, 30: 17-18, 65, June 1921.

Describes plans tried by teachers that have been successful.

876. Morrison, Cora B. The Denver salary schedule. Survey, 46: 111-12, April 23, 1921.

Discusses the salary schedule for the teachers in the public schools of Denver, which became effective on December 1, 1920. The plan was developed in a democratic way and carried out by the Grade teachers' association, an organization of 925 elementary and junior high school teachers.

877. Pearson, Francis B. The teacher. New York, C. Scribner's sons, 1921. 142p. 16°. (Vocational series.)

878. Stayer, Samuel Bechtel. The status of teachers in junior high schools. School review, 29: 379-87, May 1921.

A study of certain facts concerning the organization, administration and teaching staff of junior high schools, on the basis of data which were obtained by questionnaires sent to cities of different sizes in every state of the country.

879. Wade, J. H. Opportunities of teaching. School life, 6: 1, 13-14, May 1, 1921.

Teaching is the most vital of all professions and its importance should be placed before every man finishing his college course.

880. Watson, B. M. Merit and other factors in teachers' salary schedules. American school board journal, 62: 33-35, 112, May 1921.

The aim of this study is to find out the practice of the larger cities and towns in the formation and administration of teachers' salary schedules and to make helpful generalizations concerning this problem.

## HIGHER EDUCATION.

881. National association of state universities in the United States of America. Transactions and proceedings . . . Vol. 18, 1920. Annual meeting . . . Washington, D. C., November 12-13, 1920. 168p. 8°. (Frank L. McVey, secretary, Lexington, Ky.)

Contains: 1. G. C. Sellery: Address [Junior colleges], p. 40-44. 2. A. A. Murphree: Address [Poor scholarship in universities], p. 51-59. 3. Frank Aydelotte: Address [American Rhodes scholars], p. 78-86. 4. S. P. Capen: Address [National survey of state universities, p. 101-8. 5. David Kinley: Address [Need of increased revenues for state universities], p. 126-34.

882. Borden, Fanny, comp. A list of references on college and university government and administration, 1819-1920. Poughkeepsie, N. Y., Vassar college, 1921. 39p. 12°. (Vassar college bulletin, vol. X, no. 3, May 1921)

883. Brown, Elmer E. Too many college students. North American review, 213: 743-52, June 1921.

Concludes that we do not have too many college students at the present time, and that the point of saturation in this regard is still remote.

884. **Brown, Bollo Walter.** Educational unleveling. *Harper's magazine*, 142: 728-36, May 1921.

Writer is professor of rhetoric and composition in Carleton college, Minnesota. He says that present methods of college instruction, in being adapted to the less efficient students, are unjust to the students of ability. In order to fit itself for the training of leaders the colleges must give up present methods of advertising, quantitative standards, and pseudo-democracy and free itself from provinciality.

885. **Chapman, J. C.** The failure of the college. *School and society*, 13: 511-17, April 30, 1921.

Two mistakes of college administration are the failure of the college to recognize the existence of the heterogeneous student body and the failure of college leaders to create in the student body a proper respect for learning.

886. **Chicago association of commerce.** Special committee. Report and recommendations; special committee of the Chicago association of commerce on the conditions and affairs of the University of Illinois, Urbana-Champaign, Ill. [Chicago, 1921] 16p. 8°.

William P. Sidley, chairman.

887. **Dunham, James H.** A new orientation for the graduate school. *Educational review*, 61: 410-23, May 1921.

Discusses principally the training of the teacher as one of the vital functions of the graduate school. Also argues for centralization of graduate work within a single zone.

888. **Foster, F. M.** University government by constitution. *School and society*, 13: 572-77, May 14, 1921.

The author outlines a form of government for a university which he thinks to be reasonable and democratic.

889. **George Washington university, Washington, D. C.** Proceedings of the centennial celebration of George Washington university, February 19-28, 1921, and general university information. [Washington, D. C., The University, 1921] 94p. front. illus. 8°. (*On cover*: George Washington university bulletin, vol. xx, no. 1)

890. **Hopkinson, Sir Alfred.** Oxford fifty years ago. *Contemporary review*, 119: 509-18, April 1921.

An historical and social study of Oxford university in the seventies; old customs and undergraduate life.

891. **Kolbé, P. R.** The junior college and municipal universities. *School and society*, 13: 451-56, April 16, 1921.

Delivered before the first annual meeting of the American association of junior colleges, Chicago, February 16, 1921.

892. **Koos, Leonard V.** Where to establish junior colleges. *School review*, 29: 414-33, June 1921.

Says that the public junior colleges will eventually come to draw more largely than they have from outside the immediate community which they serve. With the acceptance of the junior-college idea and the provision of dormitories, the local character of the junior college will change.

893. **Poteat, W. L.** The re-organization of higher education. *Baptist education bulletin*, 2: 7-11, April 1921.

Annual presidential address before the Southern Baptist education association.

894. **Street, G. S.** Oxford; a thought or two. *Nineteenth century*, 89: 819-24, May 1921.

Effect on Oxford life of women students.

895. Technology's war record; an interpretation of the contribution made by the Massachusetts institute of technology, its staff, its former students and its undergraduates to the cause of the United States and the allied powers in the Great War, 1914-1919. Published by the War records committee of the Alumni association of the Massachusetts institute of technology. [Cambridge, Mass., The Murray printing company, 1920] 747p. front. (port.) illus. 4°.
896. Williams, Frankwood E. Mental hygiene and the college student. *Mental hygiene*, 5: 288-301, April 1921.  
Effects of emotional life in the student. Says that the emotions as well as intellect and mental hygiene as well as physical health must be made a part of the educational program.
897. Woodbridge, Frederick J. E. After thirty-five years; a freshman of '85 to a freshman of to-day. *Atlantic monthly*, 127: 721-31, June 1921.  
Discusses the radical and far-reaching differences between higher education at present and the college education of a generation ago. The task of college students is progressively to develop, by working with what we are and what we have, the steady devotion to American society.

### SCHOOL ADMINISTRATION.

898. Pratt, O. C. Problem of school finance. *Intermountain educator*, 16: 344-50, April 1921.
899. Walter, Arthur. School finances of Monterey county, California, and the crisis in education. [Salinas, Cal., 1921] 30p. incl. diagrs. 8°.

### SCHOOL MANAGEMENT.

900. Buckingham, B. E. An experiment in promotion. *Journal of educational research*, 3: 326-35, May 1921.  
An experiment tried in the high schools of Springfield and Decatur, Illinois. Deals with a scheme of provisional promotion.
901. Davis, C. O. Duties of high-school principals. *School review*, 29: 337-50, May 1921.  
His task is to formulate policies, suggest modes of procedure for executing them, lead his assistants into new realms of thought, and guide and co-ordinate individual and group efforts.
902. Minor, Ruby. A "case" study of supervision. *Educational administration and supervision*, 7: 214-54, May 1921.  
Contains a description of the recitation; a report of the conference between supervisor and teacher in conversational form; and a summary of the chief points where skill was shown.
903. Paton, J. L. Punishment, corporal and otherwise. *Journal of education and School world* (London), 53: 357-59, June 1921.
904. Stockton, J. L. The overcrowded elementary-school course of study. *Elementary school journal*, 21: 678-87, May 1921.  
Elimination and reorganization of subjects which diminishes their number and which takes account of "cumulative effect," correct spiral order and stages of mental growth, are the remedies for overcrowded course of study.
905. Swartz, John. The advertising page in school work. *Progressive teacher*, 27: 18-21, April 1921.  
Supt. Swartz advocates the use of the advertising page to arouse interest and illustrate subjects taught in elementary and high schools.
906. Wagner, Charles A. Common sense in school supervision. Milwaukee, Wis., The Bruce publishing company [1921] 204 p. 12°.  
This work proposes to produce two definite results: First, interest, sympathy, and enthusiasm for the right kind of supervision; second, clearness and adequacy of perception of the relations discussed.



**SCHOOL BUILDINGS AND GROUNDS.**

907. **District of Columbia. Board of education.** Special report on schoolhouse accommodations submitted to the Board of education of the District of Columbia by the superintendent of schools. [Washington, 1920] 71 p. 8°.

908. **Donovan, John J. and others.** School architecture; principles and practices. New York, The Macmillan company, 1921. xix, 724 p. illus. (incl. plans) 1°

This treatise is the joint product of 20 collaborators—school administrators and specialists in the various fields of instruction as well as architects and engineers. The method followed is first of all to describe the organization of the school and its several departments, and then to show how this organization affects the school plan and architecture.

909. **Jackson, Edward and others.** Daylight in the schoolroom. School life, 6: 1-2, 11-12, May 1, 1921.

Report of subcommittee on lighting and conservation of vision in schools to the Joint committee on health problems in education of the National council of education and the Council on health and public instruction, American medical association.

910. **Yale memorial quadrangle and Harkness tower.** Architecture and building, 53: 35-38, May 1921. Also 7 pages of plates, and cover design.

Describes and illustrates the new memorial quadrangle at Yale university, New Haven, Conn.

**SCHOOL HYGIENE AND SANITATION.**

911. **Curtis, Robert D.** Standards and methods for health work among children of pre-school age. Modern medicine, 3: 244-47, April 1921.

**SEX HYGIENE.**

912. **Curtis, Henry S.** Education in matters of sex. Pedagogical seminary, 28: 40-51, March 1921.

Discusses sex education in the home, elementary and secondary schools, the college, normal school, and medical college. Recommends the employment of a competent specialist in sex instruction, either in connection with the city health department or with the schools, who would keep in touch with the moral conditions in the city and the schools, give instruction to the students of the high schools, and organize courses for parents in the evening.

913. **Galloway, Thomas W.** The responsibilities of religious leaders in sex education. Social hygiene, 7: 139-57, April 1921.

An address delivered before the department of theological seminaries, Religious education association, Pittsburgh convention, 1920. Discusses the subject of sex education, and the problems relating thereto that should be considered in seminary courses.

914. **Wembridge, Harry A.** A new emphasis in social hygiene education. Social hygiene, 7: 159-80, April 1921.

**PHYSICAL TRAINING.**

915. **Barry, Thomas J.** Measuring results of training in physical education in an elementary school. American physical education review, 26: 119-28, March 1921.

The experiment of the Thomas N. Hart all-boys' elementary school of Boston in attempting to measure the efficiency of its physical training.

916. **Capper, Arthur.** Universal physical education is essential. Nation's health, 3: 280-81, May 1921.

Discusses federal and state cooperation in promoting physical education; outlines the objects of the national bill for physical education, introduced in Congress by Representative Fess and Senator Capper.

917. **Hetherington, C. W.** Special objectives of physical education with relationships to public health. American journal of public health, 11: 520-28, June 1921.

Physical education has been shifted from the home to the school so recently that it needs interpretation.

918. **Sundwall, John.** Health education and activities in colleges and universities. American physical education review, 26: 164-71, April 1921.

Address given before the Council of public health and legislation, American medical association, Chicago, March 5, 1920.

The colleges and universities must accept their share of responsibility and do their part in the physical regeneration of America.

919. ——— Interrelationship between physical education and students' health service. American physical education review, 26: 172-79, April 1921.

Outlines the historical development of physical education and the students' health service movements, with their aims and activities.

### PLAY AND RECREATION.

920. **Camp, Walter.** Training for sports. New York, C. Scribner's sons, 1921. 191p. front., plates. 12°. (School, college, and active service athletics)

921. **Einert, Margaret.** The rhythmic dance book. London, New York [etc.] Longmans, Green and co., 1921. 96p. front., plates. 12°.

### SOCIAL ASPECTS OF EDUCATION.

922. **Edman, Irwin.** Human traits and their social significance. Boston, New York [etc.] Houghton Mifflin company [1920] xi, 467p. 12°.

This book is intended to serve as a text in social psychology, and to clarify the student's understanding to serve as a text in social government and industry by imparting a knowledge of the human factors which they involve. It gives a bird's-eye view of the processes of human nature, from man's simple inborn impulses and needs to the deliberate activities of religion, art, science, and morals.

923. **McDougall, William.** The group mind; a sketch of the principles of collective psychology with some attempt to apply them to the interpretation of national life and character. New York and London, G. P. Putnam's sons, 1920. xxii, 418p. 8°.

924. **Myers, J. S.** Student social life. School and society, 13: 541-47, May 7 1921.

An exposition and explanation of certain phases of educational life and suggestions for the improvement of conditions.

925. **Steiner, Jesse F.** Education for social work. American journal of sociology, 26: 744-66, May 1921.

Discusses the social-work laboratory; recent developments in the preparation for social work; and the social work clinic, the latter has to do with social adjustments. Its activities comprise social work with groups, and social work with communities.

926. **Williams, J. T.** Education in recent sociology. Education, 41: 639-49, June 1921.

Third paper of series. The data for this study are based on A. J. Todd's "Theories of social progress."

## MORAL AND RELIGIOUS EDUCATION.

927. **American Baptist publication society.** *Week-day religious educational division. Week-day religious education; a survey of the situation . . .* [Philadelphia, 1921] 22p. 8°. ([Publication] no. 1)
928. **Behan, Warren P.** *Correspondence courses for non-collegians. Religious education, 16: 147-57, June 1921.*  
Correspondence courses for the ministry.
929. **Cope, Henry F.** *The professional organization of workers in religious education. Religious education, 16: 162-67, June 1921.*
930. **Mackinnon, M. C.** *The church cinema in operation; a Canadian church and its new ally—the inside story. Educational film magazine, 5: 12-13, June 1921.*  
To be concluded in July issue.  
Describes the use of the cinema by the Hallville Presbyterian church, Mountain, Ontario, Canada.

## MANUAL AND VOCATIONAL TRAINING.

931. **Allen, Frederick J.** *A guide to the study of occupations; a selected critical bibliography of the common occupations with specific references for their study. Cambridge, Harvard university press; London, H. Milford, 1921. 183p. 8°.*
932. **Anderson, Frank V.** *The evolution of workers' education. Educational review, 61: 384-88, May 1921.*  
Says that the labor movement of to-day tends to place its faith in schools supported and administered by the trade unions.
933. **Brewer, John M.** *Should the schools teach labor problems? Educational review, 61: 399-409, May 1921.*  
Makes a plea for a better understanding of the need for and the process of education in industrial problems in public schools.
934. **Gompers, Samuel.** *The workers and education. Educational review, 61: 381-83, May 1921.*  
Says that the human side of production is only now being appreciated. Education must have this point in view in training workers as well as directors of work.
935. **Mitchell, Broadus.** *Helping workers to think. Educational review, 61: 389-98, May 1921.*  
Discusses an experiment in Baltimore, Md., in conducting a labor college.
936. **Roehl, Louis M.** *Rope work. Milwaukee, Wis., The Bruce publishing co. [1921] 47 p. illus. 8°.*  
For use in instructing farm boys in rope work in agricultural schools and elsewhere.
937. **Snedden, David, ed.** *Vocational home-making education; illustrative projects. New York city, Teachers college, Columbia university, 1921. 149 p. 8°.*
938. *Vocational education in agriculture, trades and industries, commerce, and home economics. Vocational summary, 3: 170-73, March 1921.*  
The Vocational education act of 1917 and the Fess amendment.
939. **Withrow, James R.** *The entrance of industry into education. Educational review, 61: 369-80, May 1921.*  
Discusses the educational activities of various large manufacturing concerns. Says that the advent of industry into education will furnish one relief to overcrowded colleges, especially technical schools.

## VOCATIONAL GUIDANCE.

940. **Brewer, John M.** Guidance in the high school with special reference to college entrance. *School review*, 29: 434-43, June 1921.

Says that positive and affirmative work in the matter of selection can be done in the high school, provided the selection and classification are always understood as tentative and do not mean radical separation of children.

## COMMERCIAL EDUCATION.

941. **Power, Ralph L.** Degrees in commerce and business administration. *Education*, 41: 632-35, June 1921.

Says that "the day of the *collegiate* business school is here, with its requirements for entrance and graduation as standard as the college of liberal arts."

## PROFESSIONAL EDUCATION.

## LAW.

942. **Leaming, Thomas.** The study of law in England. *American law school review*, 4: 627-32, May 1921.

## MEDICINE.

943. **Gillett, Harriet M.** The future of teaching in schools of nursing without university relationship. *American journal of nursing*, 21: 546-51, May 1921.

944. **National league on nursing education.** Committee on education. Preliminary report on university schools of nursing. *American journal of nursing*, 21: 620-29, June 1921.

Discusses stages in the development of university education for nurses (types of courses already organized); the main arguments in favor of establishing schools of nursing in universities; what standards must be met to admit any professional school or department to university status, etc. To be continued.

945. **Smith, W. H.** Adequate medical service for a community. *Journal of the American medical association*, 76: 1055-62, April 16, 1921.

Discusses the problems of medical teaching, preventive medicine, diagnosis and treatment. Gives a résumé of the efforts at standardization of hospitals.

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SUGGESTIONS FOR THE  
REORGANIZATION OF THE SCHOOLS  
IN CURRITUCK COUNTY, NORTH  
CAROLINA

By KATHERINE M. COOK  
SPECIALIST IN RURAL EDUCATION



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## INTRODUCTORY STATEMENT.

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This study of conditions of the school system of the County of Currituck, with suggestions for its improvement, is made at the request of the county board of education. It is inspired by the desire of the board to adopt a consistent policy as to buildings, organization, course of study, supervision, and instruction, which provides for present and future needs of the children and gives due consideration to modern educational standards and ideals.

It is recognized that it may not be possible to meet immediately all the recommendations. But it is possible to make gradual changes in harmony with the accomplishment of the ultimate plan for an efficient school system, and to avoid useless expenditure of money in temporary expedients which retard rather than further educational progress.

This inquiry aims to consider the system of schools for white children as it is and as it should be, in order to accord with progressive ideas and to offer the best possible educational advantages to the greatest number of children. It recognizes obstacles with which the county board must contend and aims to recommend the best and most economical means for improvement.

## **SUGGESTIONS FOR THE REORGANIZATION OF THE SCHOOLS IN CURRITUCK COUNTY, N. C.**

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### **GENERAL CONDITIONS.**

Currituck County is located in the northeastern part of North Carolina, on the Atlantic coast. It is a peninsula, triangular in shape, 40 miles long, 14 miles wide at the north end, narrowing to 5 miles in the southern portion. It contains about 276 square miles. Besides the mainland, it includes several islands. Currituck Sound and the North River bound it on three sides. It joins Virginia on the north.

The soil is fertile; the leading crops are soy beans, cow peas, corn, potatoes, melons, and cotton. Potatoes particularly have brought splendid returns during the last few years. There are 984 farms in the county. The population is entirely rural. Practically all the people are engaged in farming or fishing. Hunting, while the regular occupation of only a few of the people, draws many to the county for recreation. A number of hunting clubs are located along the coast or on the islands. Currituck is the county seat, and Moyock the largest trading center; neither of these villages contains more than a few hundred people. The majority of the white farmers own their farms.

The county is old in history and tradition. Only a short distance to the south is Roanoke Island, where Raleigh made the first white settlement in the United States, in 1585, and where Virginia Dare was born. The white population is almost entirely of native birth and parentage. Most of the people are descendants of families who have made their homes in the county for many generations.

The total population is about 7,000, of which 60 per cent is white. The school census for 1919-20 was 2,748, of whom 74 per cent, or 2,080, were enrolled in school, and 72 per cent, or 1,494, in average daily attendance. The school population, enrollment, and attendance have not changed materially during the past five years.

### **ADMINISTRATION OF THE SCHOOLS.**

Currituck County conforms with the North Carolina plan in the administration of its schools. Nominally the county unit of organization prevails. There is a county board of education elected by the legislature, with considerable power and important duties, one of which is selection of the county superintendent. The county board also has general supervision over the schools of the county, the power to veto the selection of teachers, to locate buildings, to change dis-

trict lines, and, by recent legislation, to consolidate school districts. Until this was enacted the county board could not carry out a program for consolidating the schools and reorganizing the system. Six districts which failed to levy a special tax have prevented this, with the result that actual conditions resemble more nearly those which prevail under the district unit plan of administration. In the special-tax districts school buildings are better, the term longer, and salaries of teachers higher than in the nontax districts. In the latter there are only such school facilities as satisfy the minimum requirements prescribed by State law and are furnished by State and county funds.

#### NUMBER OF SCHOOLS.

The white children of the county are taught by 48 teachers. They attend school in 20 school buildings as follows: Nine, one-teacher; four, two-teacher; four, three-teacher; one, four-teacher; one, five-teacher; and one, nine-teacher building. Of these, 15 schools have a school term of six months only; 2, seven months, the additional one month financed by private subscription; the three consolidated districts levy a special tax large enough to provide for a term of eight months.

In four of the schools some work of secondary grade is done. There is one accredited high school at Poplar Branch. At two other schools, Moyock and Currituck, four years' work of secondary grade is offered, but only one teacher in each school devotes full time to it. The school equipment is very meager, and there are practically no library facilities in the county. Poplar Branch has a few reference books and some laboratory equipment. The organization follows the North Carolina plan of seven elementary and four high-school grades.

#### SUPPORT.

It is apparently the intent of the North Carolina law that schools should be supported from State, county, and district funds in about equal proportion; that is, each contributing approximately one-third the cost of the school. But this ideal is not followed fully in the management of the schools of Currituck County. The budget for the present school year indicates that, of the total expenditure (exclusive of borrowed money), the State is supplying about 59 per cent, the county 26 per cent, and the local districts 15 per cent.

As compared with the county and local district the State's support is generous. The State is by no means contributing too much. North Carolina is rich. It ranks eighth among the 48 States in the payment of direct Federal taxes. It has, by inference at least through its State laws, adopted the policy that education is a State function and has assumed certain responsibilities toward carrying this out. The county and especially the local district are contribut-

ing entirely too little. They are not assuming the proportion of total support contemplated by the law. The total amount spent for education is therefore altogether inadequate.

For the year 1919-20 the per capita cost based on enrollment was \$11 per year for each child enrolled in elementary and high schools. The average cost in the United States for 1918 was \$36.62, varying in the different States from approximately \$10 in North Carolina to \$76 in Montana. During the years 1919 and 1920 expenditures in schools throughout the country increased materially. While complete data are not available, returns so far received by the Bureau of Education, as well as a study of certain communities made by the Russell Sage Foundation indicate that the increase in 1919 over that of 1918 was about 14 per cent and that of 1920 over that of 1919 about 33 per cent. If this estimate is correct, the comparison for 1920 is about as follows: The United States as a whole, \$55.56, varying from \$15.16 to \$115.25 as among the 48 States; for Currituck County, \$11—very far below the average for the United States and below the average for North Carolina.

Next year the present limitation on county millage will be removed and the county tax can be increased. It is impossible to tell at this time whether the amount received from the State will be larger or not. But in any case the local district can appropriate more money and should at least match the county in the amount of its contribution.

#### SCHOOL BUILDINGS.

The need for more money is apparent in the general appearance and equipment of the school buildings. With the exception of those at Poplar Branch and Currituck, they are either too small or otherwise unfit for schools. Even these two are not entirely satisfactory. According to the Strayer rural-school building score card, neither scores more than 650 on a scale of 1,000 points. Water for drinking and washing, some means of fire protection, and sanitary toilets are needed badly in both. The heating plant in Currituck School, not now used, should be repaired. Both need cement walks and other similar improvements. There is also need either for a good janitor or other definite provision for keeping rooms clean and in a better state of repair.

In all of the others, especially the one-room buildings, various insanitary and unhealthful conditions menace the safety of the children. In a number of schools there are unsupported, ill-fitted joints of stovepipe, unprotected chimneys, and other careless arrangements which offer constant danger from fire. Five schools have no toilets, and several others only one. All toilets are in bad condition. Practically all of the schoolrooms are either unnecessarily large or too small to accommodate the children. In the school buildings

having more than one room thin partitions, some reaching only half way to the ceiling, and in one case curtains, separate groups of children. Even reasonable order and the quiet necessary for school work are not possible in such conditions. There are few cloakrooms, no closets, many double desks, and homemade benches. Lighting space is only one-tenth or one-twentieth of floor space in several rooms, instead of one-fourth or one-fifth, as it should be. Windows are on four sides in most of the one-room buildings; properly placed windows and enough light are provided only in the Currituck School. Nearly all buildings are in poor condition. They are rarely scrubbed or carefully cleaned.

There is little equipment beyond the bare necessities. There are no libraries or supplementary books for reading, history, or geography, and no illustrative material in the elementary schools; there is very little blackboard space and that of poor quality. In many cases blackboards are plain boards with paint almost or entirely worn off. Only two schools have any playground equipment. There are pianos in only four.

### THE TEACHERS.

#### SALARIES.

The salaries paid white teachers in the county are shown in Table 1. They vary from \$390 to \$900 per year, salaries of principals not included. Teachers who do not live at home pay board at the rate of \$30 or \$35 per month. The salaries paid for six or eight months must cover living expenses for the 12 months of the year, as well as expenses for books, travel, attendance at summer schools, and other means of self-improvement. Prepared teachers can not be expected to work for salaries so small. There are, of course, other considerations, such as satisfactory living places, good working conditions, proximity to one's home, and the like. A few teachers will remain in the county because their homes are in it or near by, but the majority need the inducement of better salaries as well as more satisfactory working conditions.

TABLE 1.—*Salaries of white teachers in Currituck County.*

School term, in months.	Number of teachers.	Salary per month.	Salary per year.	School term, in months.	Number of teachers.	Salary per month.	Salary per year.
6	3	\$65	\$390	7	1	\$85	\$595
6	4	75	450	7	3	95	665
6	1	80	480	8	2	78	624
6	7	85	510	8	4	85	680
6	2	90	540	8	2	90	720
6	3	95	570	8	1	95	760
6	2	100	600	8	3	100	800
6	1	105	630	8	2	105	840
6	1	125	750	8	1	110	880
6	1	150	900	8	12	200	11,600
6½	1	95	617½	8	11	225	11,800

<sup>1</sup> Principals, \$1,600.

<sup>2</sup> Principals, \$1,800.



TABLE 2.—*Per cent of teachers receiving certain salaries.*

Annual salary.	Number of teachers receiving.	Per cent receiving.	Cumulative per cent.
\$400 or less.....	3	7	7
\$400 to \$500.....	5	11	18
\$500 to \$600.....	19	42	60
\$600 to \$700.....	7	15½	75½
\$700 to \$800.....	7	15½	91
\$800 to \$900.....	4	9	100
Total.....	45	100	.....

## CLASSROOM WORK.

Teachers of the county give, on the whole, the impression of dignity, pleasing personality, and interest in their work. They lack definite preparation, unity of purpose, and well-defined standards of method and accomplishment. The majority of teachers are fairly well qualified as to general education, but few have professional preparation. Table 3 shows this in detail.

Of the 48 white teachers (including 3 principals) employed, 9 are graduates of normal schools; 1 has three years of higher education; and 5 have been graduated from college. More than half the teachers, 54 per cent, have no training in addition to high-school work, and about one-third of these, or one-sixth of the total number, have not completed a full four-year high-school course.

Of the total number of teachers in the county, 18 per cent are teaching for the first time; 28 per cent have had no experience or only one year of experience before coming into the county; the remainder have from two to four or more years of experience in teaching.

TABLE 3.—*Education of teachers in Currituck County.*

Number of teachers having—	
Elementary education only.....	1
One year of high-school training.....	1
Two years of high-school training.....	2
Three years of high-school training.....	4
Four years of high-school training (graduates).....	18
One year in addition to high-school training.....	7
Two years in addition to high-school training (normal-school graduates).....	9
Three years in addition to high-school training.....	1
Four years in addition to high-school training (college graduates).....	5
Total.....	48

The length of time the teachers remain in the county and in the school is important, as well as their preparation and experience. At

the present time 82 per cent are teaching for the first time in their present positions. A few are teaching the second year, and only one has spent more than three years in the school in which now employed. This annual turnover of the teaching corps—for the condition described is not confined to the present year, as examination of the records show—is perhaps the worst feature governing the efficiency of teaching in the county. The turnover is always important, but especially so when close supervision is impossible. There is continuity of neither practice nor procedure; nor is it possible for teachers who change every term of six or eight months to become familiar with the needs of the school and the progress of the children. Regardless of any consideration of the qualifications of teachers, the change in itself is a distinct loss to the progress of the children. It tends to make the county schools training schools for more or less inexperienced or indifferent teachers. Those who are successful soon leave and give the benefit of their experience to other communities.

#### THE SCHOOL TERM.

The school term varies in length from six to eight months, with an average of 127 days for the white schools of the county. In 15 schools the term is six months, in 2, seven; and in 3, eight. The special district levy is used for the purpose of paying teachers' salaries for the additional one or two months when held and for supplementing the regular salary paid by the State and county for the full term. This use of the funds is commendable, but the amount raised is quite inadequate. The standard school term should not be less than nine months. Several States now have an average term of 180 days. In North Carolina 43 counties had a longer average term than Currituck County in 1918. The average for the cities of the State was 165 days, nearly two months longer than in Currituck County.

#### SCHOOL ATTENDANCE.

The school census, enrollment, and attendance for five years preceding the present are given in Table 4. It shows little change in the school population and practically no improvement in the success with which the schools are enrolling children who should be in school and keeping them in regular daily attendance. Yet this is one test of the real efficiency of the school system, and measures the interest of the people in their schools and their confidence in the value of education. There should be a continuing increase in the percentage of children of school age who enroll in school and in the percentage of this number who are in average daily attendance. Unless this is true the system is not improving as it should be. Unless the majority

of children who should be in school really attend regularly, much of the money spent to provide facilities for them is wasted. The accompanying diagram gives an indication of this irregularity in Currituck County.

PUBLIC SCHOOL REGISTERS

[illegible]

In the above diagram the large squares represent absence, and the smaller squares represent cases of tardiness.

TABLE 4.—School population, enrollment, and attendance for Currituck County for five years.<sup>1</sup>

Years.	Census, 6 to 21 years.	Enroll- ment.	Average attend- ance.
1916.....	3,011	2,447	1,662
1917.....	3,097	2,381	1,576
1918.....	2,942	2,095	1,306
1919.....	2,796	2,070	1,298
1920.....	2,748	2,080	1,494

<sup>1</sup> See also Table 5.

TABLE 5.—*School census, enrollment, and attendance for five years (arranged according to present and proposed districts).*

Districts.	1916			1917			1918			1919			1920		
	Census.	Enrollment.	Attendance.	Census.	Enrollment.	Attendance.	Census.	Enrollment.	Attendance.	Census.	Enrollment.	Attendance.	Census.	Enrollment.	Attendance.
Shawboro.....	33	13	12	71	70	43	.....	.....	.....	.....	.....	.....	.....	.....	.....
Griggsby.....	40	32	21	33	22	17	35	26	17	28	28	18	31	29	16
Corner Gum.....	58	49	24	63	38	21	55	33	13	65	45	25	68	43	29
Indian Town.....	66	57	35	71	70	43	67	68	42	72	59	35	82	67	41
Total.....	197	151	92	238	200	124	157	127	72	165	132	78	181	139	86
Currituck.....	136	92	74	111	89	62	114	77	56	113	86	59	100	86	62
Tulls.....	27	23	17	27	21	13	32	24	19	35	31	13	33	26	20
Belle Island.....	11	10	8	11	9	8	16	13	9	13	11	9	14	11	9
Total.....	174	125	99	149	119	83	162	114	84	161	128	81	147	123	91
Barco.....	36	21	10	43	26	17	45	18	10	32	31	22	32	27	22
Coinjock.....	45	34	26	53	43	31	51	51	44	64	55	32	74	48	39
Church's Island.....	27	32	16	35	23	14	31	18	13	34	20	14	31	29	20
Total.....	108	87	52	131	92	62	127	87	67	130	106	68	137	104	81
Moyock:															
No. 1.....	32	21	18	36	22	17	34	22	14	35	20	14	24	10	9
No. 2.....	69	45	35	72	62	47	73	74	57	84	68	55	76	62	55
No. 3.....	25	12	10	29	15	11	22	10	10	16	16	10	23	17	14
Total.....	126	78	63	137	99	75	129	106	81	135	104	79	123	89	78
Powells Point.....	85	69	51	96	73	52	100	80	52	105	75	45	110	77	60
Harbinger.....	132	100	81	124	116	90	127	115	78	127	100	67	128	134	78
Jarvisburg.....	137	128	74	137	124	64	138	92	49	114	89	40	103	81	52
Total.....	354	297	206	357	313	206	365	287	179	346	264	152	341	292	190
Poplar Branch:															
No. 1.....	29	25	16	25	19	16	26	15	13	26	15	13	25	19	15
No. 3.....	91	82	51	49	31	19	41	17	11	38	18	11	28	20	15
No. 4.....	54	45	31	61	42	32	63	44	35	53	40	30	62	42	30
No. 5.....	112	80	177	158	118	152	152	100	134	135	90	186	142	105	105
No. 6.....	49	28	18	105	96	68	100	80	42	94	78	43	106	89	74
Total.....	223	292	196	417	346	253	382	308	201	345	286	187	407	312	239
Fruitville or Knott's Island:															
No. 1.....	174	135	76	201	99	74	146	100	71	144	97	74	135	71	50
No. 2.....	20	17	14	18	14	12	15	13	8	14	10	7	13	5	4
No. 3.....	38	36	24	42	32	28	34	23	18	31	26	19	27	26	16
Total.....	232	188	114	261	145	114	195	136	97	189	133	100	175	102	70

An idea of the way children of the county attend school may be obtained from Table 6, which gives the actual number of days each of 498 children attended school during 1919-20. More than half this number, 54 per cent, were in school 100 days or fewer during the year. Only 1.8 per cent of the total number were in school 160 days (accurately 155 to 160 days) or the full term of eight months.

The majority of the 498 children referred to above attended school at intervals throughout the term, continuing to remain on the roll, but attending irregularly. Such irregularity is particularly serious, because the absent child, besides missing work himself, retards the progress of the others in his class. He must either fall hopelessly

behind and go into a lower grade or consume the time of the teacher, receiving special attention to make up the work he has missed.

TABLE 6.—*Number of days attended by each of 498 children during year 1919-20.*

Number of days.	Number of children.	Sums of children from the beginning.	Number of days.	Number of children.	Sums of children from the beginning.
1- 10. ....	7	7	110-115. ....	38	376
10- 20. ....	12	19	115-120. ....	26	402
20- 30. ....	20	39	120-125. ....	14	416
30- 40. ....	14	53	125-130. ....	11	427
40- 50. ....	33	86	130-135. ....	9	436
50- 60. ....	19	105	135-140. ....	6	442
60- 70. ....	29	134	140-145. ....	10	452
70- 80. ....	32	166	145-150. ....	12	464
80- 90. ....	49	215	150-155. ....	25	489
90-100. ....	53	268	155-160. ....	9	498
100-105. ....	36	304			
105-110. ....	34	338		498	

The course of study for North Carolina is based on a nine months' term, the standard accepted throughout the country. It is impossible for children to complete in six months the full amount of work prescribed for nine, even if they are present every day. If to the disadvantage of the short term we add irregular attendance so serious that more than half of the children attend school only five months in the year, it is apparent that normal progress through the grades can not be expected. Two years are needed to complete the work of one grade. The result is that a large number of children become gradually more and more over age for the grade in which they belong and drop out at the end of a few years, with little education above the mere ability to read and write a little.

The extent to which this is true is indicated in Table 7, showing the age and grade of 607 children in the schools of the county. Fewer than half the children are of normal age for the grade in which they are enrolled, making the liberal allowance of a two-year rather than a one-year span to the grade.

Normally a child is expected to enter school at 6 years of age and to finish one grade a year. Children in the first grade should be 6 years old, in the second grade 7 years, and so on. Children alike in tastes, inclination, and general development are grouped together, and may easily be dealt with by the teacher in the same or a similar way. Each group can reasonably be expected to finish about the same amount of work in a given time. When, however, the difference in age becomes too great, group work is not feasible and can be done only at the expense of the individuals who make up the class. The table shows that there are children in the first grade ranging from 6 to 12 years of age; in other grades ranging from 8 to 13 years, from 10 to 15 years, from 8 to 17 years, from 11 to 18 years, with a

span of from 5 to 9 years in each group. It is apparent that this condition makes good class work difficult and tends to shorten the school life of many children.

TABLE 7.—*Ages and grades of 607 children in Currituck County.*

Grades.	Ages.														Total.
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1.....	43	30	22	8	4	5	1								113
2.....	3	12	19	13	5	3	3								58
3.....		3	15	26	16	9	3	6	6						84
4.....			2	6	17	8	14	9	5	1	2				64
5.....			2	2	10	14	8	6	7	2	4	1			56
6.....					4	3	13	10	11	5	3	4	1		54
7.....							11	18	16	9	7	4			65
8.....							1	4	14	10	9	6	3		47
9.....								1	5	9	10	5	3	1	34
10.....									1	2	5	6	1	1	16
11.....											7	4	5		16
Total.	46	45	60	55	56	42	54	54	65	38	47	30	13	2	607

Total pupils..... 607.  
 Number under age..... 19, or 0.3 per cent.  
 Number of normal age..... 287, or 47 per cent.  
 Number over age..... 301, or 49 per cent.

### HOLDING POWER OF THE SCHOOLS.

Table 8 shows how many children are in attendance in each of the grades for every 100 enrolled in the first grade. The rapid decline from the first to the second grade and the continued, though more gradual, decline throughout the grades shows how serious the whole question of attendance is. Apparently, only those children with exceptional ability and opportunity finish the upper grades and high school, while the majority of children in the county are satisfied with the limited education offered in the first few grades. This condition is due in large part to the short term and to the fact that the law concerning compulsory school attendance is not stringently enforced. It also indicates laxity among the people concerning the importance of education, indifferent methods of instruction, and general ineffectiveness of the whole school system.

TABLE 8.—*Number of children in each grade, based on 100 in the first grade.*

	Grades.										
	1	2	3	4	5	6	7	8	9	10	11
Enrolled in Currituck schools, September, 1920.....	100	42	47	45	25	28	22	9	7	3	1
Same, January, 1921.....	100	42	51	40	22	27	21	7	5	2	2
Expectancy survival <sup>1</sup> .....	100	100	100	90	61	68	54	40	27	17	12

<sup>1</sup> Thorndyke.

### THE COURSE OF STUDY.

The course of study quite generally throughout the county consists in following the order of lessons in the textbooks. The same books are used in all schools. Aside from this there is no unity of procedure nor generally accepted standards of practice or accomplishment.

Textbooks are the only source of information and the only working equipment furnished. This means that the rich stores of material in the worlds of nature, literature, history, science, and the like are disregarded in both elementary and high school. Music, art, industrial and manual work, agriculture, nature study, physical education, playground activities, games, and dramatization are entirely ignored in the course.

The high-school courses are of the old classical type; very little science, no home economics, and no agriculture is offered. There are no electives. Neither of the high schools has a good working library nor a reasonable supply of reference books. Training in the use of a library and in ability to use source material and to gather and organize information are therefore neglected in the high school.

At Poplar Branch there are a few books of the kind appropriate for a "circulating" library.

### SUPERVISION.

In a rural county like Currituck, with a system of schools not yet so well organized as to run without friction, with a high percentage of relatively unprepared and inexperienced teachers, supervision is of greater importance than administration. However, pressing administrative problems and clerical duties now occupy and probably in the immediate future at least must continue to occupy the time of the superintendent to the exclusion of any possibility of close supervision. There is, therefore, little evidence of professional supervision in the schools of the county. Each school is a separate entity and each teacher a law unto herself, as to organization, discipline, methods, and course of study.

Lack of systematic supervision is apparent in the methods and technique of teaching. Daily programs or schedules showing the order of work for the day were found in only one school. Classes were called and dismissed with no apparent plan or thought-out purpose to be accomplished. Many teachers did not know how many recitations they heard during the day, and had not considered the necessity of distributing time among grades or subjects according to the needs of the children or the importance of the subject. The teachers have no regular schedule but merely call classes and hear recitations, as they happen to remember them, without well-defined plans for the ground to be covered and the time to be spent in doing it. They

use from 5 to 30 minutes in recitation, often giving entirely disproportionate amount of time to some classes to the neglect of others. This results in poor work for the schools and leaves the child with no definite or orderly arrangement of the few facts he happens to remember from the day's work. Satisfactory education is impossible under such conditions.

The appearance of the schoolrooms is another evidence of the need of close supervision. Almost without exception they are disorderly and unclean. Cloakrooms, when there are any, are used for storage of unused and useless articles, and are dusty and dirty. Results from poor facilities are made worse by lack of care and attention to those that are furnished. Sweeping is done at recess periods and without any thought of sanitary requirements. Disregard of the simplest hygienic regulations is general. Whether janitors are furnished or not, the teachers assume little responsibility for the condition of the rooms.

#### SUMMARY OF SCHOOL CONDITIONS.

1. The people of the county are spending very little money on their schools. More than half the principal expenditure is paid by the State. Only three districts levy a special tax; the others make no effort to improve schools from local funds, but depend entirely on the State and county.
2. The term is far too short to enable children to complete the work of any grade according to the standard prescribed for schools in other parts of the country.
3. Teachers are underpaid and not well prepared. In most cases they remain only one year in a school.
4. The percentage of enrollment and the percentage of attendance are low. Attendance is irregular; compulsory law is not rigidly enforced.
5. Buildings are inadequate and insanitary; they have no modern school equipment.
6. There is no well-organized course of study. That followed is not adapted to the needs of the community and does not engage the interest of the children.
7. High schools are not accessible to many children.
8. There is a high percentage of overage children in all the grades and few complete the full course.
9. Supervision is inadequate.

#### SUGGESTIONS FOR REORGANIZATION.

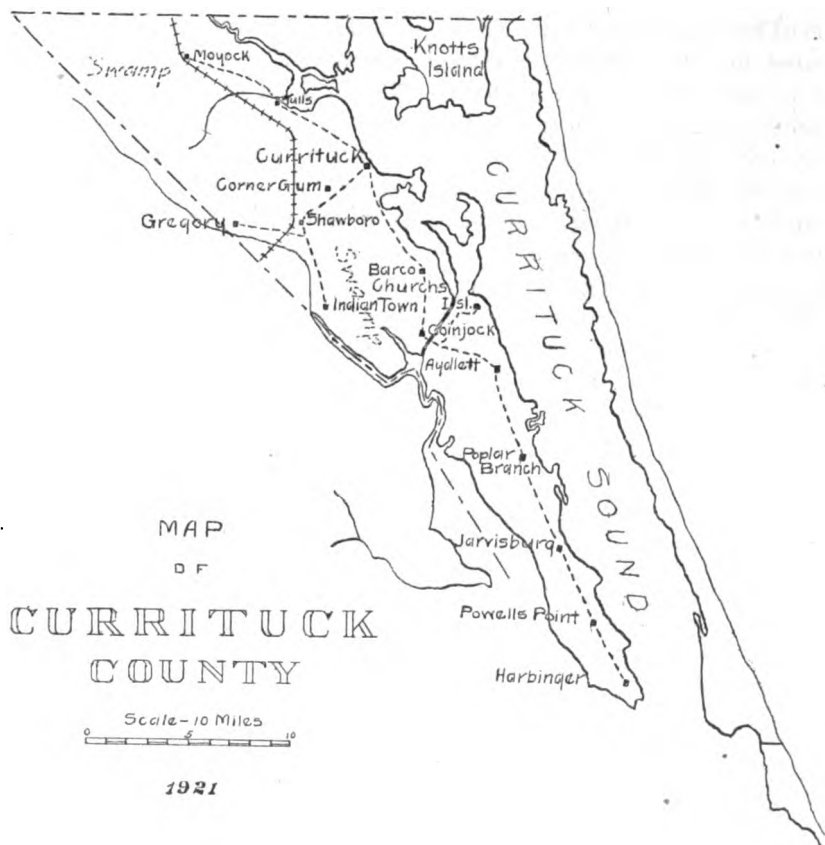
THE SCHOOLS ON THE MAINLAND SHOULD BE CONSOLIDATED.

The board should immediately adopt a plan for consolidating the schools of the county. There are now few really suitable school



buildings, and the time is favorable to adopt the new plan before additional money is wasted in replacing or repairing buildings now in use.

The shape of the county, long and narrow except at the extreme north end, and the probability that the new system of improved roads will include only the one main road east from Moyock and south from Currituck, necessitate two high schools. In addition



to enlarged buildings at Poplar Branch and Currituck, four new school buildings, six in all, will be needed on the mainland. For the present the schools on the islands in Fruitville township must remain as they are, and while the road is in its present condition the one-teacher school on Churchs Island must be continued. The children attending this should be transported to Coinjock as soon as satisfactory arrangements can be made. All other schools can be consolidated according to the plan outlined and diagrammed.

The diagrams show two successive steps toward complete consolidation. The names used indicate the approximate location of consolidated buildings and are for convenience only. They are not intended to represent the exact location of any building. Diagram I represents the first step.

#### HIGH SCHOOL DISTRICT A—POPLAR BRANCH.

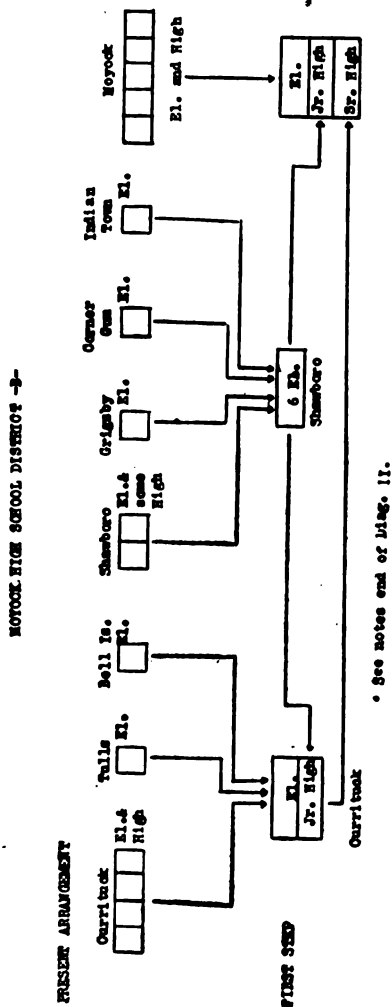
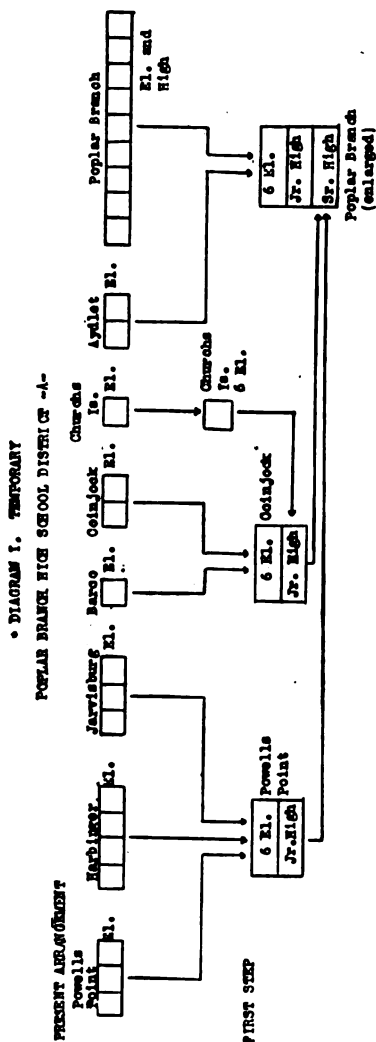
According to Diagram I (p. 19) the schools now at Powells Point, Jarvisburg, and Harbinger are consolidated in one school building located in a central location to be agreed upon by the board and the people of the three districts. This school should include the elementary and junior high-school grades. Six teachers will probably suffice for the first year. There will be pupils for only two of the junior high-school grades, the seventh and eighth. The course should be so modified that subjects requiring laboratory work or expensive equipment may be given in the senior high school grades. Two teachers working on the departmental plan should be assigned to the junior high school. Through alternation of the work of the two grades and some combination of classes, part of the time of one of the teachers can be given to assist the four teachers assigned to the six elementary grades. To illustrate: The teacher of geography or of mathematics in the seventh and eighth grades should arrange his program so as to have one hour a day to teach these same subjects in the fifth and sixth grades also. Such a division of work would avoid crowding the teacher's time in any of the grades.

The Barco and Coinjock schools are consolidated at a central point; an elementary school is retained at Churchs Island with junior high-school pupils transported to the central school building at Coinjock, in which an elementary and a junior high school is maintained. It is necessary to retain the elementary grades at Churchs Island until the road can be made better. This should be done as soon as possible, since the school building is badly located and unfit for school use. Children in the junior high-school grades are older and can be transported or transport themselves to the consolidated school. With an arrangement similar to that suggested above for Powells Point, five teachers will suffice for this school. The enrollment is small. One teacher can take care of two of the elementary grades with some help in the fifth and sixth grades from the junior high-school teachers.

The school at Ayldett is discontinued and the children in all grades are transported to Poplar Branch.

All the territory above should be included in one district for high-school purpose with the high-school building at Poplar Branch. It is designated in the diagram as High-School District A. This large territory can support a first-class high school. It is not possible

to maintain such a school unless proper equipment is supplied and at least three prepared teachers devote their whole time to high-school work. The consolidation suggested combines territory with a tax valuation of over two million dollars and school enrollment of 718. A district so formed would be amply able to incur bonded



indebtedness large enough to build handsome and satisfactory buildings, to buy trucks or wagons for transportation, and to support the schools adequately without undue hardship to any taxpayer. Under this plan educational advantages could be furnished equivalent to those offered by progressive communities in other parts of the country. Transportation should be furnished for pupils who live more than  $2\frac{1}{2}$  or 3 miles from a school building.

## HIGH-SCHOOL DISTRICT B.

In the northern part of the county the one-room schools at Tulls and Belle Island should be discontinued and the children sent to an enlarged building at Currituck. A junior high school, in addition to the six elementary grades, should be maintained here.

The two-teacher school in Shawboro and the one-room schools at Grigsby, Corner Gum, and Indian Town should be consolidated at the most central point, designated on the diagram as Shawboro. Only the six elementary grades should be maintained.

The Moyock district now includes the adjacent territory. A new building and improved high-school facilities are immediate needs, however. Pupils in the junior high-school grades from the Shawboro consolidated territory may attend at either Moyock or Currituck. The county board can fix the boundary lines so that children may attend the school nearest their homes. Few children live as far as 3 miles from Shawboro. If this were made a meeting place for children, and one large truck sent from here to Currituck or Moyock, probably no additional transportation would be needed for junior or senior high-school pupils.

This combined territory should maintain one senior high school located at Moyock or Currituck (the former is designated on the diagram). Probably the latter can be more easily reached by the majority of children in the consolidated district suggested. The tax valuation of the combined territory constituting this high-school district is \$3,300,000. The enrollment is 342.

The second step is shown in Diagram II.

The junior high-school grades at Powells Point and Coinjock are discontinued, and all pupils above the sixth grade attend the central high school at Poplar Branch.

The elementary school at Shawboro is discontinued also, and the district divided so that children may attend at either Currituck or Moyock, whichever is nearer their homes.

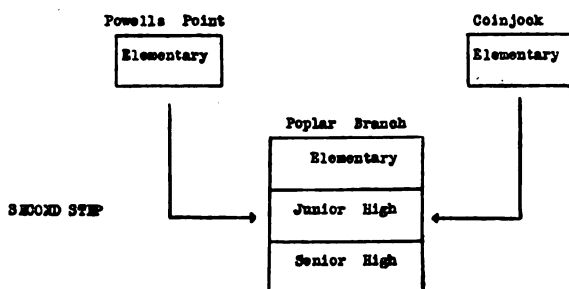
This final complete consolidation will make possible increased efficiency in school work and economy in management. The history of consolidated schools shows in nearly every case that the total enrollment and the number of children who remain and finish the upper grades increase materially; that transportation, given a fair trial, is eminently successful; that roads are improved; and that neither patrons nor children would willingly return to the old system. The people of Currituck, after trying consolidation according to the first step outlined will, it is believed, be anxious to take the additional one, which insures still greater efficiency in the education of the children. As the enrollment in the grades above the sixth continues to increase, the central high-school building can be enlarged

to meet the needs more economically than two buildings. Larger groups make the work more interesting and can be taught effectively with fewer teachers. The rooms vacated by the pupils in the seventh and eighth grades will be needed by the children in the six elementary grades. No space will be wasted.

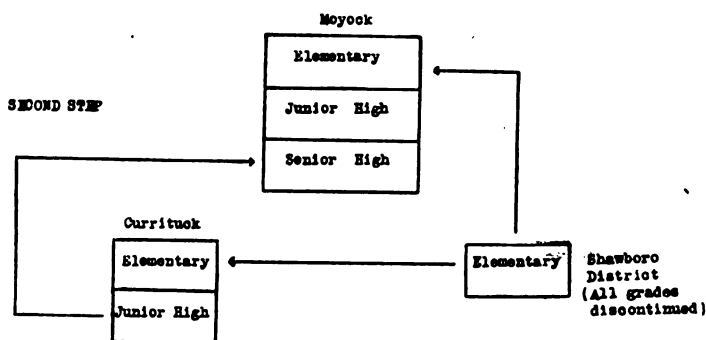
If it were not for the fact that the roads are in bad condition, and there is little prospect of immediate improvement, the final plan

Diagram II. Permanent.

## POPLAR BRANCH HIGH SCHOOL DISTRICT -A-



## MOYOCK HIGH SCHOOL DISTRICT -B-



Notes: Diagrams I - II.

Each block represents a school building.

Small sections separated by vertical lines represent rooms.

Larger sections separated by horizontal lines represent departments of the 6-3-5 organization.

would be recommended for the first step. Time will be necessary to get good roads. In the meantime the children must not lose the opportunity for an education. If one-story unit buildings, as herein-after recommended, are built, there will be no loss. Changes can progress more rapidly as prospects for good roads get brighter.

According to the plan the county would be divided into two high-school districts, one with a valuation of \$2,200,000; the other with a

valuation of \$3,300,000. Both districts would be amply able to support schools as recommended, whether combined for all schools or for high-school purposes only.

The best method to pursue in Currituck County is to consider the whole county as one district for the purpose of school support, locating schools as suggested. If this is impossible or inexpedient, the two districts is the next best plan. Greater equality of school opportunity and more equitable support is possible with one district only.

#### NEW AND ENLARGED BUILDINGS ARE NEEDED.

It is very important that the county board, before making definite arrangements for any new buildings, secure the services of an architect experienced and skilled in planning school buildings. The plans should be submitted to the State board of education and be approved by that body.

All buildings should be planned with a view to appearance, utility, convenience, sanitation, fire protection, and adaptation to the requirements of improved methods of teaching. One-story buildings on the unit plan are most suitable and economical in Currituck County, especially as they will in all probability be of wood. Ground is easily obtained and inexpensive. Such buildings can be enlarged as needs increase and the complete plan may be initiated at a minimum of cost and paid for gradually. Each building should have an auditorium large enough to accommodate the people of the community for meetings of general interest and entertainment. There should be at least one extra room for industrial work in each building.

Two-story buildings like those at Poplar Branch and Currituck, with no means of egress except that afforded by an inside stairway, are dangerous. When the needed rooms are added to these buildings, whether they are of one or two stories, adequate protection from fire should be installed in both old and new sections.

Homes for the principal and the teachers should be erected in connection with the consolidated schools wherever they are needed. It is becoming more difficult year by year for teachers to find satisfactory boarding places in the country. Good homes where teachers are welcomed and can have wholesome food and comfortable rooms, affording the quiet and privacy which they need in order to do satisfactory school work, are difficult to find. School boards find one or two cottages on or near the school grounds an economical investment. The teachers or principals in charge of the agriculture and home economics work should live in the county throughout the year. For them, at least, homes are essential.

The cost of such homes to the school board in Currituck County will not be great. In most cases the abandoned school buildings can be made over into very satisfactory houses. Some of them might

be made over into garages or barns for protecting the automobiles or wagons and horses, if the latter are used for transportation. Since shelter for such purposes must be provided, this use of old buildings is probably more economical than selling them.

**A REASONABLE SALARY SCHEDULE SHOULD BE ADOPTED BASED ON PREPARATION AND SUCCESSFUL EXPERIENCE.**

The board should employ a staff of well-prepared and, when possible, experienced teachers and retain them during good service. To this end they should establish a standard of academic and professional attainment which all applicants for positions are expected to meet, and adopt a salary schedule planned to recognize preparation, success in teaching, and special individual merit, and to encourage self-improvement.

The minimum requirement should be graduation from a standard normal school or its equivalent in academic and professional preparation. The minimum salary should be based on this, and an increment allowed for successful experience within and without the county system. Entering teachers should have a probationary status for at least one year. After that their positions should be considered permanent during good service, with regular promotions when requirements of the board are met.

Teachers who enter with higher qualifications than the prescribed minimum should begin at a higher salary, and should probably have larger increments of increase in salary. Marked success may be recognized by skipping a grade or by establishing a bonus for meritorious service. Salaries should be on a yearly basis, paid in 10 or 12 installments. Teachers should hold themselves in readiness during vacation periods to follow any regulations the board makes for attendance at summer schools, supervision of home work, or other activities in line with their regular work.

Following is a schedule embodying these principles and recommended to the board for its consideration. The beginning salary of \$1,000 is not as high as it should be. It is given here because the present scale is so much lower that it may seem difficult to the board to raise salaries as much as it should immediately. The North Carolina State Board of Education has established a minimum of \$1,200 per year for "prepared" teachers. Certainly Currituck County should not be content until this minimum is established, and only prepared teachers are employed. If any child anywhere in the State needs well prepared teachers, all children, including those in Currituck County, do, and for the same reasons. Money spent on those below standard in efficiency is wasted. Certainly it is not possible and can not be expected that efficient teachers will remain in the county unless the salaries paid justify them in doing so.

*A proposed salary schedule.*

Teachers.	Length of time of appointment.	Salary schedule for each group.				Yearly salary increase.		Year in which group maximum can be reached.
		Normal-school graduates.		College graduates.		Normal school grad- uates.	College grad- uates.	
		Mini- mum.	Maxi- mum.	Mini- mum.	Maxi- mum.			
One-year teachers (probationary for 3 years).....	1	\$1,000	\$1,150	\$1,200	\$1,350	\$75	\$125	Third.
Three-year teachers.....	3	1,225	1,375	1,425	1,575	75	125	Do.
Five-year teachers.....	5	1,450	1,650	1,650	1,850	50	100	Fifth.
Permanent teachers.....	(1)	1,700	2,000	1,900	2,200	50	100	Seventh.

<sup>1</sup> Until retired.

When the maximum of each group is reached the following alternative courses should be open to the board of education:

1. Termination of the contract (permissible each year in group No. 1).
2. Reappointment annually at the group maximum.
3. Promotion to the next higher group.

The promotion from group to group beyond that of the three-year teachers should be granted only to those who have shown special merit and have given evidence of valuable professional study. To satisfy the latter condition, the board might require the candidate for promotion to spend a year in study at some recognized college or university, or a year in teaching in some good school system in another part of the country, or perhaps a year in study and travel combined. In this connection a system of exchanging teachers might well be established.

A schedule such as the one prepared would have teachers who enter the first group looked upon as being on a probationary status, subject to reelection each year for three years. Those who are rated as "successful" at the end of this period may be promoted to the group of three-year teachers, where they will advance automatically according to the given increments for a period of three years. Those who are rated as "unsatisfactory" can in turn be continued from year to year at the maximum of the probationary group or dropped from the corps. When a teacher has reached the maximum of the three-year group, the board can then promote her to the five-year group if she has met the requirements demanded for promotion, reelect her from year to year at the maximum she has reached, or dismiss her. And so, when the maximum of the five-year group is reached, the teacher who has won promotion by her success in the classroom and by her efforts at self-improvement can be made a member of the "permanent teacher" group, where



she will remain until she retires. If, in the judgment of the officials, a teacher has not merited this promotion, she can be retained for a time at the maximum salary granted to the group she is in or be dropped. In this manner an adjustment can be worked out between the teachers' proper desire for security of tenure and the board's proper desire to eliminate the teachers who do not continue to grow in efficiency. At the same time the teacher knows that efforts at self-improvement will find tangible reward in terms of salary increase.

#### ADEQUATE SUPERVISION SHOULD BE PROVIDED.

The plan suggested for reorganizing the schools contemplates the engagement of four principals.<sup>1</sup> Each should have at least half his time free for supervision. One of these principals should be prepared to direct the introduction of and supervise work in home economics; another should do the same for agriculture; another for physical education; and another for music. The board should have in mind, when selecting the principals, special preparation and fitness for such work. In addition to their duties in the schools of which they are in charge, they should supervise their special subjects in all the schools of the county.

For the present at least a primary supervisor is needed to have general charge of the first six grades. After the new buildings are completed, the new organization well established and well prepared, experienced teachers are secured who remain in the system from year to year; the superintendent and the principals together will constitute an adequate supervisory staff.

#### A NEW COURSE OF STUDY SHOULD BE PREPARED.

The county is entirely rural. Farming is the one important industry. The school, if it meets the needs of the community, must connect its work closely with farm and home life in the elementary grades and establish in the upper grades courses which directly prepare for farming and home making.

This does not mean that the curriculum should be so narrow as to confine itself to education in agriculture or to make a vocational school of the elementary course. It does mean that all education must be based on life and in a rural community on country life; that children who, because of inclination, ability, and circumstances, expect to remain in the county and be farmers need the chance to prepare to be intelligent ones, and that the school should offer them this opportunity. The fact that the present population is made up

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<sup>1</sup> The distribution of work contemplated is, one principal for high school and one for elementary grades in each district. Another basis, that of location, for example, might be adopted if preferable.

of persons whose families have long lived in the vicinity leads one to believe that most of the children now at school will remain and make their homes in the county. Moreover, a school course of the kind described would appeal alike to the practical minds of boys and girls at the age when they are most inclined to leave school, and to their parents, who have learned by experience to realize the necessity of progressive scientific methods of farming. Children come longer and more regularly to school when their interests are engaged and their welfare affected in a way which is evident to them.

The schools should be organized on the six, three, and three plan—six elementary, three junior high, and three senior high-school grades. This is economical as well as efficient in the country because older children can walk or be transported somewhat farther than younger ones and concentration of groups is more feasible. Senior high schools and, to a less extent, junior high schools need more expensive equipment, larger buildings, and teachers who have specialized in the subjects they teach, and should not be unnecessarily multiplied.

The North Carolina State course of study will form a good basis but should be adapted to local conditions. The first six grades are concerned chiefly with fundamentals and should, in addition to the tool subjects, provide for nature study, gardening, play and recreation, sanitation and hygiene, dramatization and story telling. Music, literature, the fine and industrial arts should be taught with emphasis on appreciation.

The junior high-school course may include electives, one or two in the first year, increasing the number allowed in the second and third years. In the junior high school three years each of English, history, and mathematics, one year of civics, two of geography, and natural science, one year of hygiene and sanitation, and three years each of physical education, music, and current events should be required. Other required and elective subjects may be selected from the following: Home economics, fine and industrial arts, animal husbandry, agriculture, one or two other sciences, commercial subjects, Latin, and at least one modern language.

In the senior high school a higher degree of specialization should be expected and the number of electives increased. Courses which prepare for college and courses which prepare for vocations should be offered, affording as wide a selection as the size of the school and resources of the community warrant.

#### A NEW SYSTEM OF KEEPING ACCOUNTS AND RECORDS IS NEEDED.

The systems of accounting and of record keeping do not show the things about the business conduct of the system and the school conditions which they should. The records kept now show the cash

balance, the amount of indebtedness, etc., and check items of expenditures roughly for the county. They do not show the cost per child in average daily attendance in each school; the amount per capita which the board is spending, expressed in terms of salaries, repairs, equipment, supplies, etc. An account should be opened with each school, so that the board can know how the children in each are faring in terms of money expended. If this were done in Currituck County, it would show a very wide variation among the schools in the amount spent per child on education.

The records should also show such things as the following:

1. Age-grade distribution for each school and for the whole system taken annually to determine facts about retardation and acceleration of pupils.

2. A table compiled annually showing how many children in each grade and school have attended for 100 days, 110 days, 120 days, and so on up to the full number of days the school has been in session.

3. A table showing the facts about promotion and failures in each grade and in each school.

4. A table showing the number of children who dropped out before the term closed and why.

5. A card catalogue of those who have completed the grades and the high school, showing the important facts about their school history, where they go and what they do.

6. A card catalogue of teachers showing training, experience, certification, and other facts of importance.

7. Chart showing seating capacity and number of children assigned to each room.

8. The annual reports of the superintendents of other school systems should be secured, examined, and a card index compiled of references to those which the superintendent foresees may be of use in connection with some of his projects. A similar file of publications from the State department, leading educational journals and the like, would be useful.

#### THE COST OF CARRYING OUT THE PLAN NOT PROHIBITIVE.

Estimates for the present school year indicate that the county is spending for all purposes about \$15.50 per child enrolled on the upkeep of the schools. The corresponding figure for the United States (average as estimated in another paragraph) is \$55.65. As the given amount in Currituck County is spent almost entirely on teachers' salaries, we may confine ourselves to that in this estimate.

If the per capita expenditure is increased \$9.50 per year, making a total of \$25, the county will still be spending much less than the average for the United States and can not be considered extravagant

or even liberal in providing for schools. Such an increase will be approximately equal to that amount raised by a levy of 3 mills on the total tax valuation of the county, or \$18,632. The salary budget for the present year is \$41,244. If to this is added \$18,632, estimated as above, the total available for salaries will be approximately \$60,000.

If the plan proposed were carried out the following teachers would be needed:

For the consolidation at—

Powells Point.....	6
Coinjock.....	5
Poplar Branch.....	9
Shawboro.....	4
Currituck.....	5
Moyock.....	7
For the schools in Fruitville.....	4
Total.....	40

Forty teachers, with four principals and one supervisor, will constitute a staff large enough to allow one teacher for each grade in most cases, with not more than two grades for any teacher, with three teachers for one and four for the other senior high school devoting full time to high-school subjects. The cost of this staff is estimated below. Salaries suggested, while much higher than those now paid in the county, are not better than good teachers should expect. A term of nine months is contemplated. Of the \$59,500 estimated as necessary, the State can be expected to pay half or nearly half. The amount received from that source the present year is \$25,000. Some increase is probable.

Two principals for the senior high schools, at \$2,000 each.....	\$4,000
Two principals for the junior high schools, at \$2,000 each.....	4,000
Forty teachers, at \$1,000 each per year.....	40,000
One primary supervisor.....	1,500
Total.....	59,500

It is not intended that this estimate shall be more than a tentative one or give more than a general idea of the cost. When the levy is actually made, it will probably come in part from county and in part from special district sources. The county levy can be increased the next year without exceeding the maximum prescribed in the law at the present time, regardless of any provision the legislature now in session may make. However, a 3-mill increase over this year's levy probably represents the minimum amount which will be needed to carry out the new plan the coming year. As salaries increase according to the schedule suggested, the annual expense will increase somewhat. The county tax rate this year is 1.9 mills. If we add to this the 3 mills suggested for increasing salaries and qualifications of

teachers, the total would not exceed 5 mills. A 6-mill levy would doubtless cover the maintenance expense of all the improvements recommended. Many counties in other States have a far higher rate for schools; 50, 75, and even 100 mills are not uncommon.

The money needed for buildings and equipment, including trucks or wagons for transportation, should be raised by a bond issue. Automobile busses for schools or auto trucks have proved most satisfactory for transporting children in different parts of the country. Generally the cost per child is less than if horse-drawn vehicles are used. The initial cost is greater and should be included in the bond budget, while the maintenance expense should be included in the annual tax levy estimate. The interest and a sinking fund for meeting the annual payments should be provided for also when the levy is made.

#### CAN CURRITUCK COUNTY AFFORD BETTER SCHOOLS?

It has been indicated elsewhere that Currituck County is not poor in natural resources, value of products, native ability of its people, or tax valuation. Intelligence and prosperity are indicated by the quality of farm homes and buildings, machinery, and general improvements. Many of the homes are equipped with electric or other lighting plant and have other modern conveniences. Tractors and other farm implements show that progressive ideas of farming prevail. There are 400 automobiles, valued at approximately \$400,000, a per capita investment of \$55, more than four times the amount (\$12) invested in school property. Estimating upkeep of these automobiles at the conservative figure of \$15 per month, more money is spent annually on automobile repairs, oil, and gasoline than for the maintenance of all the schools in the county. If we consider only the money spent by the county itself, exclusive of State funds, it is safe to say that the people of Currituck are spending this year twice as much on keeping up automobiles as on educating children. Only in the schools are the people of the county willing to continue the methods and standards of living adopted by their fathers and grandfathers to meet the needs of many years ago. The old homemade benches (not desks) still in use in some schools bear the initials of the grandparents of children who now attend, and if not in the same buildings, at least in those which are similar in kind and construction.

The State's favorable laws and liberal assistance in funds do much for the educational interests of the county. Recently property valuation for taxing purposes has been raised, conforming with progressive ideas on this subject. In short, the county gives every indication of being in a favorable position for the establishment of a modern system

of schools. It is necessary only for the people actively to interest themselves in the education of their children and to contribute more generously to the support of the schools.

It is not necessary that an amount be added to the present school expenditures which shall be burdensome to taxpayers, or that it shall be more than a slight expense to the majority. Table 9 shows the number of persons paying taxes on given valuations, ranging from \$500 to more than \$10,000, arranged in intervals of \$500.

TABLE 9.—*Number of persons paying taxes on given valuations.*

	Persons.		Persons.
On \$500 or less.....	886	On \$6,001 to \$6,500.....	12
On \$500 to \$1,000.....	246	On \$6,501 to \$7,000.....	20
On \$1,101 to \$1,500.....	142	On \$7,001 to \$7,500.....	15
On \$1,501 to \$2,000.....	117	On \$7,501 to \$8,000.....	23
On \$2,001 to \$2,500.....	107	On \$8,001 to \$8,500.....	16
On \$2,501 to \$3,000.....	71	On \$8,501 to \$9,000.....	10
On \$3,001 to \$3,500.....	61	On \$9,001 to \$9,500.....	8
On \$3,501 to \$4,000.....	56	On \$9,501 to \$10,000.....	14
On \$4,001 to \$4,500.....	45	On \$10,000.....	110
On \$4,501 to \$5,000.....	44		
On \$5,001 to \$5,500.....	30		2,065
On \$5,501 to \$6,000.....	32		

Valuation of hunting clubs, \$337,036; number of clubs, 8. N. S. Railroad property, \$469, 202.

Of the 2,067 taxpayers in the county, more than 40 per cent pay taxes on \$500 or less and approximately 55 per cent (54.7 per cent) pay on a valuation of \$1,000 or less. A flat increase in the levy of 3 mills recommended in this report means an increase in total taxes paid annually of \$1.50 or less for 40 per cent of the people and \$3 or less for more than half the people in the county. For 88 per cent of the taxpayers, the increase amounts to \$15 or less. Only 110 persons and corporations, including a number of clubs, railroad and other corporations, as well as nonresident individuals, would have increased taxes of \$30 or more per year. Surely this amount is negligible in view of the fact that this slight increase on the property of the county would make possible the maintenance of vastly improved schools.

The total cost of building and operating good schools is always greater than that of poor ones. Good buildings, good teachers, longer terms, high schools, and transportation facilities cost money. So indeed do modern homes, harrows, disks, tractors, automobiles, lighting systems, and telephones, and yet few intelligent people contend that we should discard these modern means of comfort and convenience. Economy does not necessarily follow small investments but depends rather on the returns on the investment, the

value received for money expended. The present school system costs very little, but the returns are meager also. Indeed, many schools now cost more than their value in educational returns actually justifies. A good school system will enroll a higher percentage of the children of school age; will keep them at school regularly for a longer period each year and for the completion of the full course; will provide the kind of education that makes better and more useful citizens; add to land values and productive possibilities of the county; and encourage desirable and progressive citizens to make homes within its borders. Returns on the investment measured in money will be much larger than from the same amount invested in any other way. If measured in terms of the permanent influence on the lives of the children and the higher welfare of the community, they will be greater still.

#### SUMMARY OF RECOMMENDATIONS.

1. Substantial increase of school funds.
2. Consolidation of schools according to plan outlined.
3. New buildings which meet modern requirements in appearance, arrangement, and equipment.
4. Reorganization on the 6-3-3 plan; a course of study based on the life and needs of the community and harmonizing with such reorganization.
5. Adequate staff of prepared supervisors, principals, and teachers.
6. Salary schedule based on preparation, experience, and meritorious service, applying alike to all parts of the county.
7. Provision for enforcement of compulsory attendance law and systematic effort to promote regularity of attendance.
8. The school term of nine months for all schools.
9. Adoption of effective system of cost accounting and of collecting data and keeping records.



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# A SCHOOL BUILDING PROGRAM FOR ATHENS, GEORGIA

By

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## A SCHOOL BUILDING PROGRAM FOR ATHENS, GEORGIA.

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Athens was the pioneer in bringing higher education to the youth of Georgia. Will it lead in reconstructing its public school plant so as to bring modern educational advantages to the children of the public schools?

This question states the real significance of a school building program for Athens at the present time.<sup>1</sup>

### ATHENS AN EDUCATIONAL CENTER.

When the visitor to Athens asks what is the chief industry of the city, the answer is "Education." And the answer is not far wrong, as yet.

Athens did not start as an industrial center. Education, not industry, was the cause of the founding of the town. In 1801 a grant of 600 acres was given to the State by John Milledge for the purpose of establishing "a seat of learning" in Georgia. A site was chosen for the State University of Georgia, said to be one of the oldest State universities in the country; and the town grew up around the university.

This fact has conditioned the character of the town in a number of interesting ways. In the first place, if the town had started as an industrial center, the first building would probably have been erected along the flats by the Oconee River, and then as the town grew the more well-to-do members of the community would have climbed to higher ground, leaving about the river the usual unsightly mixture of old insanitary dwellings jostled by encroaching factories. But the town started with the university, and it started on the heights. The municipal buildings, the post-office, the city hall, and the University of Georgia were all built on a high plateau. Later, the city spread out into four wards. The second ward, running through the city northwest and southeast, represents the original settlement. The first ward, where the factories follow the river, climbs up the east bank of the Oconee River; the fourth ward, now the congested part of the city, extends almost due west from the Oconee River; while the third ward, the newer residential section, spreads out to the south.

Athens is different in spirit from the usual industrial town. Like its namesake, it is beautiful. It has the variety of landscape, the

---

<sup>1</sup>At the request of the Board of Education of Athens, Ga., the Commissioner of Education detailed Alice Barrows Fernandez, specialist in the United States Bureau of Education, to make a survey of the public schools of Athens, Ga., with a view to working out a building program for the schools of the city. The survey was made in March, 1921. Mrs. Fernandez was assisted in working out the plans of buildings and building costs by Mr. William B. Ittner, consulting architect.

THESE THINGS BEING THE CASE, THE  
GOVERNMENT OF THE UNITED STATES  
HAS DECIDED TO TAKE THE FOLLOWING  
MEASURES TO PREVENT THE  
FURTHER SPREAD OF THE  
DISEASE AND TO PROTECT THE  
HEALTH OF THE PEOPLE OF THE  
UNITED STATES.

1. TO ISOLATE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
FOR A PERIOD OF TWO WEEKS.

2. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO REPORT TO THE HEALTH  
DEPARTMENT.

3. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO REMAIN AT HOME AND NOT  
TO VISIT OTHER PERSONS.

4. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO WEAR MASKS AND GLOVES  
WHEN OUTSIDE.

5. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO AVOID PUBLIC PLACES AND  
GATHERINGS.

6. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO AVOID TRAVEL OUTSIDE THE  
COUNTRY.

7. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO AVOID CONTACT WITH OTHER  
PERSONS.

8. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO AVOID CONTACT WITH OTHER  
PERSONS.

9. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO AVOID CONTACT WITH OTHER  
PERSONS.

10. TO REQUIRE ALL PERSONS  
WHO ARE SUSPECTED OF HAVING  
THE DISEASE OR WHO HAVE BEEN  
IN CONTACT WITH SUCH PERSONS  
TO AVOID CONTACT WITH OTHER  
PERSONS.

## SCHOOL BUILDING PROGRAM FOR ATHENS, GA.

minate the character of the city, leaving education, as it opens, in a sort of secluded bypath, a privilege for the few, an opportunity for the many, or they can take the initiative in helping to make the public schools of the city what the school system in America ought to be—a children's university. The spirit of cooperation between the university and the schools indicates that that choice has already been made. The fathers and mothers of Athens have the choice of letting their children remain in cramped quarters which will stunt their physically, mentally, and physically, or they can demand that all children, the children of all the people, shall have as rich an education as the favored few who are able to survive and go on to university. The business men of the city have the choice of letting them continue, getting more and more decrepit, thus necessitating ever larger expenditures for repairs and additions, or they can adopt a statesmanlike policy to adopt a permanent building program which will give a modern up-to-date school plant, carrying out as much of it as possible with the present income and the remainder from year to year until the plan is completed.

### THE CONTEMPLATED BOND ISSUE INADEQUATE FOR NEEDS OF SCHOOL BUILDING

The contemplated bond issue of \$323,000 is totally inadequate to meet the needs of the public schools of Athens. It is possible, however, to begin to meet the needs with that amount. But even that cannot be done economically and efficiently except on the basis of a permanent building program, of which the plans for the \$323,000 bond issue will be only a part. This report, then, will describe what the present conditions are in the schools; outline a permanent building program which will provide for growth over a period of ten years; outline in detail what part of this program can be carried out with the \$323,000 bond issue; and show that it is financially possible for Athens to carry out the permanent building program in the near future.

### PRESENT CONDITIONS IN THE PUBLIC SCHOOLS.

The condition of the public school buildings in Athens is deplorable. Athens is to be congratulated upon the fine, progressive board of education, and teaching force, who are doing their best to give progressive education to the children, and trying to do it in the face of almost insuperable obstacles. It is impossible to make a way of building modern education to "give children the opportunity for self-expression," to teach them to "learn by doing," etc., when there is not sufficient number of them.

richness of coloring, and the stimulating air that make the Athenians of Georgia love their native city as the Athenians of old loved their city. Again, like its namesake, the city seems to realize the importance of living, not merely the importance of accumulating things. It cares about education; it cares about enriching life.

#### **ATHENS DEVELOPING INTO AN INDUSTRIAL CITY.**

But the visitor to Athens can not be there long without realizing that a change is coming over the city, and that this spirit of mellow enjoyment of life, of tolerance, and of interest in ordered living and human progress which goes with, or should go with, the university spirit, is rather what remains of the first period of Athens's history. The real question is what the second period of its history is going to be.

Athens is rapidly becoming an industrial city.<sup>2</sup> It is now the second largest inland cotton market in the State, and it is also the center of a large wholesale business for northeast Georgia. It already has some 30 manufacturing establishments, of which the largest are the 5 textile plants, employing about 720 people. The other manufacturing plants are fertilizers, a compress plant, foundry and machine shop, woodworking shops, brick plant, bottling, bakeries, candy, laundry, oil factories. There are about 200 retail stores. It was impossible to secure the exact number of workers in the different plants, but it was estimated that in the 30 establishments enumerated there were about 1,200 people.

This development of the industrial life of Athens necessarily shifts the emphasis in education, or rather it enlarges its scope. Athens is no longer a university town but a modern industrial city where the question of public education for the mass of children has come to be of as vital importance as the question of university education. The important question before the city is whether it is going to recognize these facts in time and reconstruct its school plant to meet the changed conditions.

#### **SIGNIFICANCE OF A SCHOOL-BUILDING PROGRAM FOR ATHENS.**

The real significance of a school building program for Athens at the present time is that it is a challenge to the city to prove whether or not the belief in education upon which the city was founded is virile enough to face the facts of modern life; whether it is scientific enough to recognize that changed social and industrial conditions demand drastic changes in public schools, and that, in order to preserve its leadership in education, the university education of which the city is justly proud must be founded upon a broad, modern, elementary school education.

The educators of Athens have a clean-cut choice before them. They can either let the industrial development of the town grow and

<sup>2</sup> The total population in the whole city in 1920, exclusive of the new territory annexed, was 17,912, an increase of 11.1 per cent in 10 years.



dominate the character of the city, leaving education, as too often happens, in a sort of secluded bypath, a privilege for the few rather than an opportunity for the many, or they can take the initiative now in helping to make the public schools of the city what the public school system in America ought to be—a children's university. The fine spirit of cooperation between the university and the public schools indicates that that choice has already been made.

The fathers and mothers of Athens have the choice of letting their children remain in cramped quarters which will stunt their growth, spiritually, mentally, and physically, or they can demand that their children, the children of all the people, shall have as rich an education as the favored few who are able to survive and go on to a university.

The business men of the city have the choice of letting the present plant continue, getting more and more decrepit, thus necessitating larger and larger expenditures for repairs and additions, or they can enter upon a statesmanlike policy to adopt a permanent building program which will give a modern up-to-date school plant to the city, carrying out as much of it as possible with the present bond issue and the remainder from year to year until the plan is completed.

#### **CONTEMPLATED BOND ISSUE INADEQUATE FOR NEEDS OF SCHOOLS.**

The contemplated bond issue of \$323,000 is totally inadequate to meet the needs of the public schools of Athens. It is possible, however, to *begin* to meet the needs with that amount. But even that can not be done economically and efficiently except on the basis of a permanent building program, of which the plans for the expenditure of the \$323,000 bond issue will be only a part.

This report, then, will describe what the present conditions are in the schools; outline a permanent building program which will take care of congestion and provide for growth over a period of at least 10 years; outline in detail what part of this program can be carried out with the \$323,000 bond issue; and show that it is financially possible for Athens to carry out the permanent building program in the near future.

#### **PRESENT CONDITIONS IN THE PUBLIC SCHOOLS.**

The condition of the public school buildings in Athens is deplorable.

Athens is to be congratulated upon the fine, progressive spirit of its superintendent, board of education, and teaching force. They are doing their best to give progressive education to the children, but they are trying to do it in the face of almost insuperable obstacles in the way of buildings and equipment. It is impossible to make bricks without straw. It is equally impossible to carry out the precepts of modern education to "give children the opportunity for self expression," to teach them to "learn by doing," etc., when there is nothing with which to do or make things, nothing but school seats, and not a sufficient number of them.

TABLE 1.—Original capacity of the public schools of Athens; net enrollment in 1910-11 and in 1919-20; per cent of increase in enrollment 1910-11 to 1919-20; number of regular classrooms available; total classrooms required; excess of rooms required over those available; special activities.

Schools.	Date of erection.	Grades.	Enrollment.				Regular activities.			Special activities.																						
			Original capacity of school.	Not enrollment.			Excess of pupils in 1919-20 over seating capacity of school.	Per cent increase 1910-1920.	Number of regular class-rooms.	Total number of classrooms required.	Excess of classrooms required over those available.	Auditorium.	Gymnasium.		Shops.		Commercial room.	Cooking room.	Sewing room.	Drawing room.	Music room.	Science.			Library.	Principal's office.	Teachers' rest room.	Other rooms.	Total square feet.	Playground outdoor (square feet).		
				In 1910-11.	In 1913-14.	In 1919-20.							Built for purpose.	Classroom used.	Built for purpose.	Classroom used.						Manual training.	Other.	Nature study.							Chemistry.	Physics.
ELEMENTARY SCHOOLS.																																
White:																																
Baxter Street.....	1887	1-7	280	270	292	305	25	12.9	7	8	1	.....	.....	.....	.....	.....	.....	11	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42,600	139	
Childs Street.....	1909	1-7	320	243	278	410	90	23.7	11	11	3	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	48,759	118	
College Avenue.....	1908	1-7	480	425	497	511	31	10.2	12	11	1	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19,339	42	
Oconee Street.....	1908	1-6	240	139	221	250	10	79.9	6	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,300	73	
Nantabala Avenue.....	1907	1-5	160	157	181	220	60	40.1	4	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34,206	155	
Total.....	.....	.....	1,480	1,234	1,469	1,614	134	30.7	37	43	6	.....	.....	.....	.....	.....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	163,404	101	
Negro:																																
East Athens.....	1891	1-5	240	350	362	429	189	22.5	6	11	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25,974	60	
West Athens.....	1891	1-5	240	456	221	291	51	56.7	6	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27,600	69	
Newtown.....	.....	1-5	160	209	182	22	100.0	4	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,930	38	
Reese Street.....	1913	1-5, 6, 7	7120	338	163	43	100.0	3	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	(e)	.....	
Total.....	.....	.....	760	806	1,130	1,065	305	32.1	19	28	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	69,331	61	
Total elementary.....	.....	.....	2,240	2,040	2,599	2,679	439	31.3	56	71	15	.....	.....	.....	.....	.....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
HIGH SCHOOLS.																																
White:																																
Athens High School.....	.....	8-11	165	254	345	.....	109.0	8	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Negro:																																
High and Industrial.....	1913	7-8-11	.....	50	111	.....	100.0	4	.....	.....	(10)	.....	.....	.....	11	(13)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,827	32
Grand total.....	.....	.....	2,202	2,903	3,137	.....	42.4	.....	.....	.....	1	1	.....	.....	3	.....	2	4	3	.....	.....	2	1	1	4	.....	.....	.....	.....	.....	.....	

- 1 One of the classrooms is used as a cooking room.
- 2 A room in the basement is used as a classroom.
- 3 Decrease.
- 4 Two rooms which are under size are counted as one.
- 5 On the basis of the 1921 enrollment, 400 pupils.
- 6 On the basis of 1921 enrollment.
- 7 The elementary grades (5, 6, 7) and the high-school grades (8, 9, 10, 11) are in one building. Estimating a room to a class, 4 rooms for the present enrollment would have to be set aside for the elementary grades.
  - \* See high and industrial school.
  - \* A former jail has been converted into a manual training shop of 2 rooms.
  - \* Two rooms have a movable partition, which when drawn convert the 2 rooms into a makeshift auditorium.
  - \* One small room in the basement.
  - \* There are 4 classes in the evening school, for which temporary quarters have been secured in garages and shops around the city, as there is no room for them in the school.
  - \* In a remodeled house on the grounds.
  - \* Part of the porch has been partitioned off for a principal's office.

**SCHOOLS BADLY CONGESTED—439 MORE CHILDREN THAN SCHOOL SEATS.**

The schools are badly congested. There are five white elementary schools and one white high school. There are three Negro elementary schools and one combination elementary and high school. In the white elementary schools there are 1,614 children and 1,480 school seats, 134 more children than there are seats. In the Negro schools there are 1,065 children and 760 school seats, 305 more children than there are school seats.<sup>3</sup> In other words, 16.4 per cent of all the elementary school children were without school seats in 1920. They went to school and somehow seats were found for them. But it means that there were too many children in a room; that some children attended school only in the morning and some only in the afternoon; that they had to sit in overcrowded rooms with bad air, and subject to all the evils of overcrowding; and that in some cases children were studying in the corridors with screens used in the sorry attempt to convert a corridor into a classroom.

TABLE 2.—*Number of teachers per school in 1919-20.*

Schools.	Principals.	Regular teachers.	Special.										Total regular.	Total special.	Total principals.	Grand total.
			Chemistry.	Physics.	Physical training.	Commercial.	Domestic science and arts.	Manual training.	Band.	Military tactics.	Music.	Drawing.				
ELEMENTARY.																
White:																
Baxter Street.....	1	6														
Childs Street.....	1	17														
College Avenue.....	1	10														
Oconee Street.....	1	6														
Nantahala Avenue.....	1	5														
Total.....	5	44											44		5	49
Negro:																
East Athens.....	1	5														
West Athens.....	1	4														
Newtown.....	1	3														
Reese Street.....		4														
Total.....	3	16											16		3	19
Total elementary.....	8	60											60		8	68
HIGH SCHOOLS.																
White: Athens High School.	1	8	1	2	1	2	1	1	1				8	9	1	18
Negro: High and Industrial.	1	4	1				1	1	1				4	4	1	9
Grand total.....	10	72	2	2	1	3	2	2	1				72	13	10	95

<sup>3</sup> See Table 1, showing original capacity of the public schools of Athens, Ga.: net enrollment 1910-11 and 1919-20; per cent of increase in enrollment 1910-1920; number of regular classrooms available; total classrooms required; excess of rooms required over those available; number of special activities.

And the congestion is going to be worse as time goes on. The enrollment in all the schools increased from 2,202 in 1910 to 3,137 in 1920, an increase of 42.4 per cent in 10 years. Yet there has been no new elementary school building for 12 years. This means that a building program must not only eliminate the congestion which has developed in the last 10 years, but also provide for a growth of 42 per cent in the next 10 years.

#### NO MODERN SCHOOL FACILITIES IN THE ELEMENTARY SCHOOLS.

Classroom congestion is sufficiently undesirable, but when, in addition, there is no opportunity for healthful work and play in shops and playrooms and auditoriums and laboratories, the situation becomes a menace to the health and morals and intellectual growth of the children. Yet there are almost no special facilities in the elementary schools of Athens.<sup>4</sup> There is not a single auditorium, and there are only two special activity rooms in all the white elementary schools—one cooking room in the Charles Street School and one in the College Avenue School. There is a cooking room in Baxter School, but it is nothing but a classroom with some meager cooking equipment. In Nantahala School a closet is used as a cooking room, and in Oconee part of a hall has been partitioned off in the attempt to develop this work. These attempts show the desire of the principals and teachers to give some special work to the children, but the space and the equipment are pathetically inadequate.

There are no science rooms in any of the elementary schools, no shops, no drawing rooms, no music rooms, no libraries, no gymnasiums. There are only two principals' offices in all of the eight elementary schools, and there are no teachers' rest rooms in any of the schools.

#### THE HIGH SCHOOLS.

The facts as given on the chart as to the Athens High School are misleading.<sup>5</sup> As a matter of fact, the building is entirely unsuited to school purposes, and only the fine spirit of the principal and teachers makes it possible to carry on the work effectively. The building was originally a courthouse. It is not fireproof. It is badly constructed. The ceilings are so high that it is expensive to heat, and the windows are so narrow that the lighting is very bad. But there are only 345 children in the high school, and there are 1,614 children in the elementary schools. And the elementary school children do not have even the special facilities that exist in the high school. Therefore it is obvious that the needs of the elementary school children should be taken care of first.

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<sup>4</sup> See Table 1.

The High and Industrial School for Negroes is utterly inadequate for the number of pupils enrolled and for the type of work that is being carried on there. As a matter of fact, this school is carrying a triple load, for it includes an elementary school, a high school, and a night trade school. Yet the building is only a frame structure of the 8-classroom type, with a cottage for the domestic-science work. When the fact is considered that there is being taught in this school at present the regular academic work, together with science, shopwork, and domestic science, and that, in addition, courses in carpentry, blacksmithing, plastering, brick masonry, automechanics, and nurse training are being given in the trade school, and that there is such a demand for this work that garages and shops in the city have to be rented to carry on the work in the evening, it is clear that the type of work being done in this school has far outgrown the building and equipment.

To sum up, in a school system of 3,137 children, there is only 1 auditorium, 1 gymnasium, 3 manual training shops, 2 commercial rooms, 4 cooking rooms, 3 sewing rooms, and 3 science rooms. And all of these special facilities, with the exception of 2 cooking rooms, are in the 2 high schools.

#### WORK AND PLAY AS NECESSARY AS STUDY.

The seriousness of this lack of modern educational facilities can only be understood when it is realized that work and play are as essential in education as opportunity for study in classrooms. No child was ever educated by study alone. All children have always been educated by three things—work and study and play. If they are deprived of any one of these, their education is incomplete. But children in modern cities are being deprived of two of these essential elements in their education, i. e., work and play.

It is difficult for adults who have been brought up in the country, in a simpler environment, to realize what a revolution has taken place in the conditions surrounding children's lives. It is difficult for them to realize that the days of the little red schoolhouse have gone forever. Everyone knows, when he stops to think about it, that school does not necessarily spell education. A child's "education" begins each day from the moment he gets up in the morning until he goes to bed at night. Some of this education he gets in school, some of it he gets outside of school. But the kind of education which the child of to-day gets outside of school is very different from what he received 50 years ago outside of school, while the education which he receives in school has remained much the same. Fifty years ago he began the day by doing chores about the farm, taking care of the animals, mending a piece of harness or part of a wagon. Then he went to school and got the "book learning" that he could not get at home,

and after school he played in the fields or stopped in at some blacksmith shop or carpenter shop and watched a friend at work and learned to handle tools himself. All this work on the farm and in the small shops was education, and the schoolhouse simply supplemented it. Furthermore, it was this first-hand knowledge of life and this opportunity to experiment, to learn to handle tools, to invent new ways of doing things, which developed the independence and initiative, the mechanical knack and resourcefulness, that have given this nation much of its inventive genius.

But times have changed. At the present time 50 per cent of the population of the country live in cities, and the city is an extremely poor place in which to rear children, chiefly because it deprives them of the opportunity for healthful work and play. There is little work of educational value to be done about a city home. On the contrary, the whole tendency in the city is to have as much work as possible done outside the home. There is no harvesting and planting to be done, few, if any, animals to be taken care of; and it is a rare city home that has a workshop or tools or laboratory in which children may experiment.

But the city not only fails to educate children in the right direction; it educates them in the wrong direction. With the majority of children the street becomes their only playground, and the street is a most effective teacher in all the vicious and sordid side of a city's life. There is probably no greater menace to the health of the children of this country—physical, mental, and moral—than our failure to realize the vital necessity of play for children. The average adult apparently looks upon play as recreation merely, something to indulge in after the serious business of life is over for the day, something that one is a little ashamed to give much time to, until perhaps ill health forces one to give time to it. Possibly because of the stress and speed at which life is lived to-day, the fact has been forgotten that play is not merely recreation, not a luxury, but a *necessity* for children if they are to grow in strength and health and mental keenness.

Children in the public schools all over the country get practically no time for play until 3 o'clock in the afternoon. Ten minutes' recess in the morning and a few minutes in the afternoon is not play, it is literally a "recess" from sitting in school seats. And Athens is like every other city in this respect. But Athens, at least, has the authority and inspiration of her namesake for a better custom. To the Greeks, play was of the first importance in their scheme of education. The Athenians, whose achievements in art, literature, education, and the art of living have never been surpassed, realized that play was the foundation of physical health and intellectual power. Yet in the modern Athens of Georgia there is no public playground, and there is practically no opportunity for children to play during

school hours. It were well if the modern Athenians took to heart the words of Socrates in regard to the place of play in education, when he says in *The Republic*:<sup>6</sup>

Can there be anything better for a State than that it should contain the best possible men and women?

There can not.

And this result will be brought about by music and gymnastics employed as we described?

Undoubtedly.

**THE CITY SCHOOL MUST PROVIDE OPPORTUNITY FOR THE WORK AND PLAY WHICH THE HOME CAN NO LONGER PROVIDE.**

Since the city is doubtless here to stay, it is imperative that the school return to children the opportunity for the work and play which the home no longer supplies, and which is absolutely essential for the healthy growth of children. For these reasons it has come to be recognized that every modern school must have not only classrooms but also an auditorium, gymnasium, shops, laboratories, cooking rooms, sewing rooms, drawing and music rooms, where children may be kept wholesomely busy all day long.

What Athens needs is a building program which will not only eliminate congestion and give adequate classroom facilities, but which will also provide the special facilities for work and play.

But how is Athens to develop a building program which will not only furnish sufficient classrooms but also provide the other modern educational facilities, and do it within the financial limits of the city?

**THE BALANCED LOAD PLAN VERSUS THE PEAK LOAD.**

There are two chief methods of accomplishing this. One is by the traditional type of school organization, or the peak-load type; and the other is the work-study-play plan, or balanced-load type.

The traditional type of school organization attempts to solve the situation by the usual custom of providing a seat in a classroom for every pupil, which that pupil has for his exclusive use. All children are expected to be in school seats at the same time, and if provision is made for such special facilities as auditoriums, gymnasiums, laboratories, and workshops, they have to be erected in addition to a classroom for every class, and when the pupils go to the special rooms the classrooms are vacant. This means that the addition of these special facilities which are essential in a modern school plant add, under the traditional plan, fully 60 per cent to the cubical content of the building.

This is what is commonly known in business as the "peak-load type" of organization because the load is not distributed, but, on

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<sup>6</sup>The Republic of Plato, Book V.



the contrary, tends to concentrate at any moment in one part of the building, e. g., the classrooms, and when the children leave the classrooms to go into the special facilities the load is transferred, leaving the classrooms vacant. Obviously, if Athens has to supply not only these special modern educational facilities, but a school seat for every child, the expense will be prohibitive. The question for Athens, then, is how the school system can be rehabilitated to furnish larger educational opportunities and at the same time effect the economies which will bring the building program within the financial resources of the city?

It is evident that the solution of the problem must be found in the increased use of school accommodations and more skillful school planning. Both are possible by skillful organization and administration. Fortunately, there is a method of school organization which has demonstrated its ability to effect these results, namely, the work-study-play plan, or balanced-load type.

This plan developed in an attempt to solve the peculiar school problems created by the modern city, and it is now in operation in the public schools in some 30 or 40 cities in the country.<sup>7</sup> It grew out of a recognition of the fact that, as is the case in Athens, the growth of city conditions makes the educational problem far more difficult than formerly; in fact, has created a new school problem. The plan represents an attempt to make it practicable, both administratively and financially, for school administrators to provide not only classroom accommodations, but also such modern educational facilities as gymnasiums, auditoriums, shops, and laboratories, where children may be kept wholesomely occupied in study and work and play.

#### THE WORK-STUDY-PLAY, OR BALANCED-LOAD, PLAN.

Under the work-study-plan the load is balanced so that half the children are in classrooms while the other half are at work and play. For example, a school is divided into two parts, each having the same number of classes and each containing all the eight or nine grades. The first part, which we will call the "A school," comes to school in the morning, say, at 8.30, and goes to classrooms for academic work. While this school is in the classrooms it obviously can not use any of the special facilities, therefore the other school—B school—goes to the special activities, one-third to the auditorium, one-third to the playground, and one-third is divided among such activities as the shops, laboratories, drawing and music studios. At the end of one or two periods—that is, when the first group of children has remained,

<sup>7</sup> For example, Detroit, Mich., has 16 public schools on the work-study-play plan, and has just adopted a program for putting all the schools in the city on the plan. Pittsburgh, Pa., has 6 schools on the plan; Passaic, N. J., has 2; Newark, N. J., has 9; Troy, N. Y., has 1; and Newcastle, Pa., has 4. Winetka, Ill., Kalamazoo, Mich., Sewickley, Pa., and Swarthmore, Pa., are running all their schools on the plan. For information regarding attitude of school superintendents in these cities toward the plan, see Appendix I.

according to the judgment of the school authorities, in school seats as long as is good for them at one time—the A school goes to the playground, auditorium, and other special facilities, while the B school goes to the classrooms. Chart I shows how the load is balanced so that half the children are in classrooms while the other half are working and playing.<sup>8</sup>

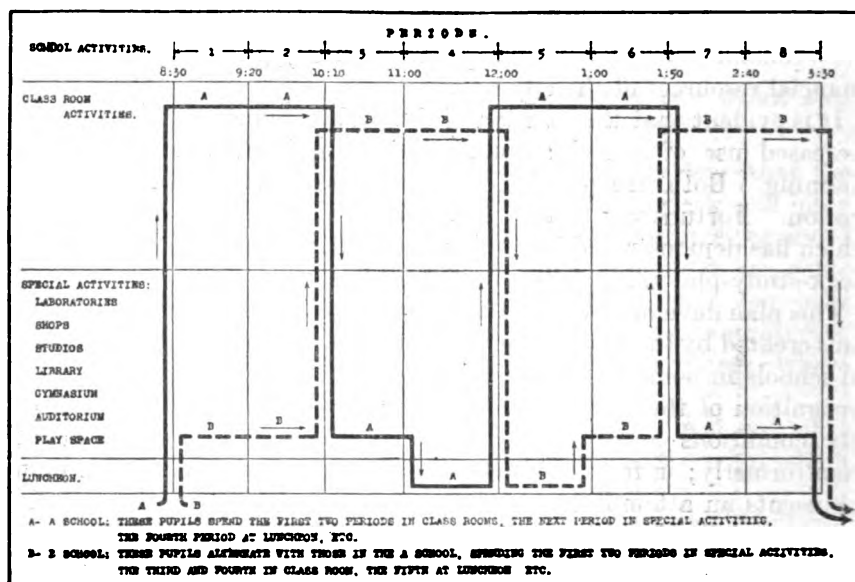


CHART I.—Balanced load-plan of school organization by which half the school is in classrooms while the other half is at work and play.

The following is one type of program that may be used. In this program each school (A and B) is divided into three divisions: Division 1, upper grades; division 2, intermediate grades; division 3, primary grades.<sup>9</sup>

*The "A School."*

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30-9.20	Arithmetic—Divisions 1, 2, 3			
9.20-10.10	Language—Divisions 1, 2, 3			
10.10-11.00	(Entire "A School" at luncheon.)	Division 1.	Division 3.	Division 2.
11.00-12.00	Reading—Divisions 1, 2, 3			
12.00-1.00	History and geography—Divisions 1, 2, 3			
1.00-1.50		Division 3.	Division 2.	Division 1.
1.50-2.40		Division 2.	Division 3.	Do.
2.40-3.30				

<sup>8</sup> See Chart I.

<sup>9</sup> For other types of programs see Appendix II.

*The "B School."*

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30-9.20		Division 2.	Division 3.	Division 1.
9.20-10.10		Division 3.	Division 2.	Do.
10.10-11.00	Arithmetic—Divisions 1, 2, 3.			
11.00-12.00	Language—Divisions 1, 2, 3.			
12.00-1.00	(Entire "B School" at luncheon.)			
1.00-1.50		Division 1.	Division 3.	Division 2.
1.50-2.40	Reading—Divisions 1, 2, 3.			
2.40-3.30	History and geography—Divisions 1, 2, 3.			

PRINCIPLE OF MULTIPLE USE MAKES MODERN EDUCATIONAL FACILITIES FINANCIALLY PRACTICABLE.

In other words, the work-study-play plan applies to the public school the principle on which all other public service institutions attempt to run, i. e., the principle of multiple use of facilities. The whole tendency in modern public utilities is to eliminate the peak load by using all facilities all the time; and the utility becomes more efficient and accommodates a larger number of people at less cost to the extent to which it balances its load. For example, it is evident that our transportation system is made possible because all people do not have to ride at exactly the same time. Public parks can be maintained by the city because they are not reserved for the exclusive use of any individual or group; the larger the city, and therefore the larger the number of people supporting them, the more extensive and beautiful the parks can be made. Hotels can accommodate thousands of people because they are not run on the principle of reserving each room for the exclusive use of a single individual during the entire year.

On the contrary, our public-school system up to the present time has been run on the principle of reserving a school seat for the exclusive use of one child during the entire year. All children have to be in school seats from 9 a. m. to 12 and from 1 to 3, and at 3 o'clock all of them are dismissed and turned out to play. The result is that there are never enough seats for all the children to study in, nor enough playgrounds for them to play in; and yet large sums of money are invested in these facilities, which the children can have the use of for only a fraction of the day. For example, thousands of dollars are invested in school auditoriums, and yet the average school auditorium is used regularly only 15 minutes a day. Thousands of dollars are invested in playgrounds, and yet these playgrounds are empty of children all day until 3 o'clock in the afternoon. In fact, if a child is found on the playground before 3 o'clock he is

driven off because he is playing truant. Obviously, the playgrounds exist for the use of the children, and yet children have the opportunity to use them only a few hours a day, because they must be in school seats from 9 to 12 and 1 to 3. Thousands of dollars are invested in school shops and science laboratories, and yet practically no child in the elementary schools has the opportunity to enter them until the seventh grade, and then for only a few minutes a week. Half the children in the country leave school before they reach the seventh grade.

There would, after all, seem to be no good reason why the principle of other public service institutions, i. e., multiple use of facilities all the time, should not apply to the school, nor any reason why all children should be in classrooms at the same time, nor why the special facilities should be used only a fraction of the day, provided, of course, that the children receive during the day the required amount of academic work. In fact, it is difficult to see how the problem of providing enough classrooms or playgrounds or auditoriums for the mass of children is ever to be met if all children have to be in classrooms at the same time and if all children have to play at once. Moreover, there seems to be no good reason from an educational standpoint why children should all have to do the same thing at the same time.

Fortunately, if the principle of multiple use is applied to public school facilities it is financially possible to provide not only adequate classroom accommodations, but also auditoriums, gymnasiums, laboratories, and shops for the mass of children. In fact, accommodations may be provided in all facilities, if they are in use constantly by alternating groups, at less cost than regular classrooms may be provided on the basis of a reserved seat for every child. For example, in a 50-class school, under the traditional plan, 50 classrooms are needed in addition to all other special facilities. Under the work-study-play plan only 25 classrooms are needed. Therefore, under this plan the cost of 25 additional classrooms is eliminated. The average cost of a classroom at the present time is \$12,000. Since only half the usual number of classrooms is required under the work-study-play plan, i. e., 25 classrooms in a 50-class school, the cost of the remainder is released for all the other special facilities. Chart II shows the waste in cubic feet, in cost, and in capacity in a building run on the traditional as compared with the same building organized on the work-study-play plan.

#### EDUCATIONAL ADVANTAGE OF THE PLAN—AN ENRICHED CURRICULUM.

The important point about the balanced-load plan, however, is not its economy, but the fact that it makes possible an enriched education for children. Under this plan the children not only have

## A. TRADITIONAL PLAN OF SCHOOL ORGANIZATION.

## I. Utilization of site

Use	Out door play ground.	Building	
number of square ft.	100 x 300		
per pupil.	15		
Distribution of pupils.	No pupils.	2,000	Waste
Hours per day.		5	

## II. Utilization of building.

	1,800,000 cubic feet - cost \$ 750,000					400,000 cu. ft.
Use	Halls. Stairs. Toilets.	Gym- nasium.	Audi- torium.	14 special rooms.	50 classrooms.	
Cubic capacity.	272,000	182,000	250,000	330,000	716,000	Waste
Percent of building.	15.1	10.1	11.7	19.4	39.8	
Distribution of pupils.		No pupils.	No pupils.	No pupils.	2,000	
Hours in use.					5	

## B. WORK-STUDY-PLAY PLAN - NO WASTE.

## I Utilization of building.

	1,400,000 cubic feet - cost \$600,000				
Use.	Halls. Stairs. Toilets.	Gym- nasium.	Audi- torium.	14 special rooms.	25 class- rooms.
Cubic feet	234,000	182,000	250,000	330,000	392,000
Percent of building.	16.7	13.0	15.0	25.0	28.0
Distribution of pupils.		80	200	400	1,000
Hours in use.		6	6	6	6

## II. Utilization of site.

Use	Out door play ground.	Building
number of square ft.	100 x 300	
per pupil.	200	250 x 175
Distribution of pupils.	150	2,000 1,850
Hours per day.	6	6

CHART II.—Showing the waste of building space under the traditional plan of school organization as compared with the utilization of all space all the time under the work-study-play plan, or balanced load plan. Total number of pupils under either plan, 2,000.

Under the work-study-play plan, 1,000 pupils are in classrooms while 1,000 pupils are in special facilities. Under the traditional plan, all pupils are in classrooms at the same time, and when they go to the special facilities, the classrooms lie idle. For example, if any of the 2,000 pupils in classrooms go to the auditorium, the classrooms of those pupils remain vacant. What good is a vacant classroom to a child?

What good is an empty playground or auditorium or shop or laboratory to a child?

the same amount of time for reading, writing, arithmetic, geography, and history as formerly, 210 minutes, but also 50 minutes of play every day, 50 minutes of auditorium a day, and 50 minutes of shop-work every day in the week for a third of the year; science every day for a third of a year; and drawing and music every day for a third of a year.<sup>10</sup> At present, children get in most schools a 10-minute recess period for play, a few minutes for opening exercises in the auditorium, and little or no time for special activities.

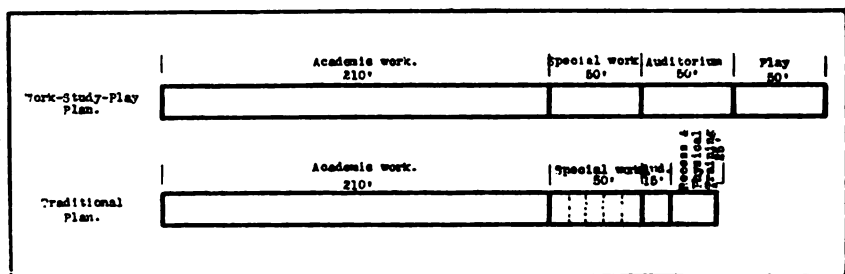


CHART III.—Daily allotments of time for academic work, special work, auditorium, and play, under the traditional plan and under the work-study-play plan of school organization.

#### EXPLANATION OF CHART III.

##### *Academic Work:*

In the *traditional school*, 210 minutes are given to reading, writing, arithmetic, geography, and history every day.

In the *work-study-play school*, 210 minutes are given to reading, writing, arithmetic, geography, and history every day.

##### *Play:*

In the *traditional school*, 25 minutes are given every day to recess, physical training, physiology, and hygiene.

In the *work-study-play school*, 50 minutes a day every day are given to play.

##### *Special Activities:*

In the *traditional school* 50 minutes are divided between 4 or 5 special subjects—drawing, music, shop, sewing, etc.—2 periods a week to some special subjects, and a few minutes a day to others.

In the *work-study-play school*, the year may be divided in 3 parts, and each child receives 50 minutes of science every day for a third of the year; 50 minutes of shopwork every day for a third of the year; and 50 minutes of music and drawing every day for a third of the year. Or these special subjects can be alternated by days, weeks, or months.

#### FLEXIBILITY OF THE PROGRAM MEETS INDIVIDUAL NEEDS OF CHILDREN.

A program based upon the multiple use of facilities also makes it possible to have a flexible program. After all, schools were created for children and not children for the schools, and it should be possible to adapt the program to meet the needs of individual children instead of making children conform to the program, as is too often the case. A study of the different types of work-study-play schools in different parts of the country shows that it is possible to adapt the program to the needs of different types of children and different types of communities.

<sup>10</sup> See Chart III showing allotment of time for academic work, play, auditorium, and special work.

For example, a child who is backward in a special subject, such as arithmetic, and is being held back in a grade because he can not master that subject, and is growing discouraged because he has to repeat the whole year's work, can double up in arithmetic for a number of weeks by omitting the auditorium period until he has made up the work and is ready to go on with his grade in that subject. In the meantime he has not been held back in other subjects, but has progressed as rapidly in them as he is able to. Or if a child has a particular talent in some subject, he can, under this program, double his time in that subject by omitting his auditorium period a number of times a week and yet not lose any time from his regular work.

Again, it is possible to adjust the time of beginning or leaving school to meet the desires of parents. For example, it is possible to arrange to have the school begin at 8.30, 8.45, or 9 a. m., or any other hour desired. Or if the school begins at 8.30 and certain parents object to having their children leave for school so early, it is possible to put these children in the "B School," which begins the day with special activities; in this case the children can omit the play period or auditorium from 8.30 to 9.20 and arrive at school at 9.20. Or, again, many parents prefer to have their children take special music lessons after school. It often happens that home work or staying after school interferes with these lessons. Under the work-study-play plan it is possible to put such children in the "A School" and let them omit the play period or the auditorium in the afternoon from 2.40 to 3.30 p. m.<sup>11</sup> There is, of course, no reason why children should not be given credit for these out-of-school activities if so desired. As for the special facilities in school, each community and each section of the city can have the special facilities which the school authorities and the parents desire.

#### THE SCHOOL TAKES OVER THE STREET TIME OF THE CHILD.

As has been pointed out, one of the most undesirable elements in the life of city children is the street life in which they have hitherto spent so large a part of their time. The average city school is in session about 180 days in the year. Obviously, because of conditions of modern city life, it is necessary that the school take over some of the time now spent by the child on the city streets, especially during the school year. At present if 10 hours of the 24 are allowed for sleep and 6 for meals and home duties, there still remain 8 hours to

<sup>11</sup> The school day in Athens—9 a. m. to 2 p. m.—is altogether too short, for it leaves the children on the streets for practically half of every day. It is questionable whether it would be desirable to lengthen the day if it meant keeping children in school seats any longer, but in a work-study-play school the additional hours are spent in playgrounds, shops, laboratories, and auditoriums, which means that wholesome activity in play and in work is substituted for desultory loafing upon the city streets.

be accounted for. Even if the children were in school 5 hours every day, there would still be 3 hours left, and as is well known these hours are spent on the city streets, and not to the child's advantage. At least one or two of these should be taken over by the school, and wholesome activity in work and play provided.

The work-study-play plan does this by lengthening the school day an hour or two, as each community may desire, and by offering to the children the wholesome activity in shops and laboratories and on the playgrounds, which is so essential for them. It should be borne in mind, however, that this lengthening of the school day does not necessarily lengthen the number of teaching hours of any teacher. It is necessary that she be at the school 6 hours, but she need not teach more than 5 hours.

#### **PRINCIPLES UPON WHICH THE PROPOSED BUILDING PROGRAM HAS BEEN WORKED OUT.**

In planning the school building program for Athens the following aims have been kept in view:

*First*, to relieve existing congestion, and provide for growth for a period of at least 10 years.

*Second*, to consolidate the present small and inadequate plants into a small number of modern, up-to-date school buildings with adequate playgrounds, thus providing for the maximum educational opportunities for children as well as for community uses of the plant.

Like most cities, Athens is laboring under the handicap of having too many small buildings. Many small buildings are more expensive than a few large modern plants. They are more expensive in cost of upkeep as well as in initial cost. They also provide fewer modern facilities for the children. The larger the school within limits, the more economical it becomes and the richer the facilities that can be offered to children. A school of 1,200 pupils can afford such facilities as an auditorium, shops, gymnasium, laboratories, etc., whereas if the children were housed in two school buildings with separate sites, equipment, teaching force, janitorial service, and cost of upkeep, the total expense would be far greater. For example, a glance at Table 3 shows that the Athens public schools have spent during the past 10 years (1910-11 to 1919-20) \$50,120 on repairs, fuel and light, furniture and equipment, maintenance of grounds, and rent account. Of this amount, \$20,446 is for repairs alone, and the item for repairs in 1919-20 was twelve times as much as it was in 1910-11. These items are not given by schools, but if they were it would doubtless be found that the greatest expense for repairs was in the oldest schools. In other words, the maintenance of many old and decrepit plants is a waste of money.



TABLE 3.—*Cost of repairs, fuel and light, furniture and equipment, maintenance of grounds, rent account for public schools, by years, from 1910-11 to 1919-20, inclusive.*

	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	Total.
Repairs.....	\$531	\$1,200	\$1,320	\$1,265	\$1,429	\$1,979	\$2,285	\$1,956	\$2,092	\$6,381	\$20,446
Fuel and light.....	1,176	33	1,213	1,150	1,585	1,500	1,571	2,359	2,943	2,653	16,273
Furniture and equipment.....	1,397	445	1,371	629	756	988	1,917	1,144	465	692	9,804
Maintenance of grounds.....				134	194		22	56	7		412
Rents account.....		961	382	364	247	240	240	220	290	240	3,185
Total.....	3,104	2,639	4,295	3,542	4,211	4,797	6,035	5,734	5,797	9,966	50,120

As a matter of fact, Athens has barely enough children in all the white schools for one good-sized building, and the same is true of the Negro schools, but owing to the geographical conditions of the city it will doubtless be necessary to have at least one school for whites on the east side of the Oconee River and one on the west side. The same is true for the Negro schools. In the detailed building program, however, two alternate plans are given, the first providing for two schools for whites and two for Negroes, and the second plan providing for three each.

*Third*, the aim has been to work out a building program which will give modern school facilities to *all the children* in the public school system. Too often there is a tendency in communities to invest all the available funds in one or two buildings which can be used only by a minority of the children. This is neither democratic nor fair to the children of the city. The city's funds should be so spent that all children would receive an increase in the opportunity for a modern, all-round education. This is not only important from an educational standpoint, but is the most economical plan in the end, for if old buildings are allowed to continue without additions or improvements, far more money has to be spent on them in the end than if they had been renovated in time.

*Fourth*, two building programs are submitted. The first is a permanent building program, which shows what ought to be done in order to provide adequate modern school buildings and equipment. This building program, however, requires more funds than are available with the present contemplated bond issue of \$323,000. Therefore, a second building program has been outlined showing what it is possible to do with the bond issue of \$323,000.

It should be clearly understood that the permanent building program is not simply an idealistic outline of what it would be desirable to give the children of Athens, but that it is a program which it is financially possible for Athens to carry out if it is spread over a period of years. And the building program for the bond issue is planned to carry out as much as possible of the permanent building program at the present time. It is one thing to spend

\$323,000 to meet immediate needs with no consideration of the future; it is another to spend that amount as part of a statesmanlike plan for developing a modern school plant in the city. It is felt that Athens will not be satisfied with anything short of such a plan.

*Fifth*, the cost of the program has been worked out after careful study of building costs, not only in Athens but in the country as a whole. Furthermore, the costs have been estimated on the basis of actual drawings for the type of building recommended.

The present building costs are about 35 cents per cubic foot. It is estimated that soon they will be down to 30 cents per cubic foot. This makes the classroom cost of a building \$12,000 per classroom unit. "Classroom unit costs" include not only the cost of classrooms but of gymnasiums and auditoriums, corridors, stairs, principal's office, teachers' rest room, toilets. When additions are erected the classroom cost is about \$10,000, and the auditorium and gymnasium are estimated separately. In cases where the addition is attached to the school the cost has been given in accordance with the actual drawing and cubic foot cost.

#### THE IMPORTANCE OF EQUIPMENT.

The cost of equipment is based upon the most recent information of cost of equipment for each different kind of activity. The importance of providing modern equipment can not be too strongly emphasized. Up to the present time Athens in erecting its most recent building has made the mistake of providing only enough funds for the shell of the building and almost no funds for equipment. This is comparable to erecting a factory for turning out automobiles and providing no funds for machines or tools. It is futile to provide workshops for children without providing tools for them to use in the workshop; furthermore, an inadequate supply of tools is only a handicap and an exasperation.

#### IMPORTANCE OF FIREPROOF BUILDINGS.

The estimates of the cost of buildings will probably come as a surprise and a shock to many citizens. This is because Athens up to the present time has not been in the habit of erecting fireproof buildings for her children. She can not afford, however, not to change that policy. Great care is taken nowadays that modern office buildings in which adults work should be of fireproof construction. For example, one of the most recent office buildings erected in Athens is of that type, and cost over \$300,000. All modern factories are fireproof. A hospital just erected in Athens is fireproof and cost some \$300,000. A church recently erected cost \$200,000. Just around the corner from the board of education is a fine, modern, fireproof building for making ice cream, which cost \$50,000. Yet

there is not a public school building in Athens that cost \$50,000. Isn't the safety of 3,000 children as important as that of people who work in office buildings? Isn't it as important to protect children before they have to be sent to hospitals as after they arrive there? Isn't the preservation of children's lives and health as important as the preservation of cotton or ice cream?

Of course these questions answer themselves, and there is no community that would be quicker to answer in the affirmative than Athens, but like many cities it has up to the present time simply failed to realize that its children are no longer in little red school-houses, and that it must be prepared to spend as much on its school buildings as on its office buildings and factories.

The estimates given represent the amount being spent on school buildings in the country as a whole.

The aim in working out this building program has been to make it practicable for Athens to carry it out. One of the greatest difficulties in carrying out a modern school building program is that the average citizen does not visualize the modern type of school. Therefore the floor plans of such a school are given in Exhibits A and B.

One of the advantages of the type of building recommended is that it can be put up gradually; that is, one floor can be erected and later a second added; or the whole of the first floor, with the exception of the gymnasium and auditorium, can be erected and these two facilities can be added later; or merely the outer perimeter of the first floor can be erected and the gymnasium, auditorium, domestic science and workshop added later. This means that, in the building program for the bond issue, it is possible to start three modern buildings instead of putting all the money into one.<sup>12</sup>

In the program recommended for the bond issue a certain number of portable additions are recommended, owing to the fact that the bond issue does not provide adequate funds for the complete building program. Two things should be clearly understood, however, about these portables. In the first place they are not of the usual type, but are of a modern, sanitary type that can be secured in separate units and combined into one building if so desired. It is possible to secure a classroom type, or an auditorium fully equipped, or a gymnasium, or shops, or cooking room. Every city should have a certain number of these portables, since the population is always moving and it is undesirable to erect a new permanent building until it is certain that the growth of population in a certain section is more or less permanent. Therefore, the portables recommended can always be used in different sections of the city as the school population moves.

<sup>12</sup> A full description of the building will be found in Appendix III.

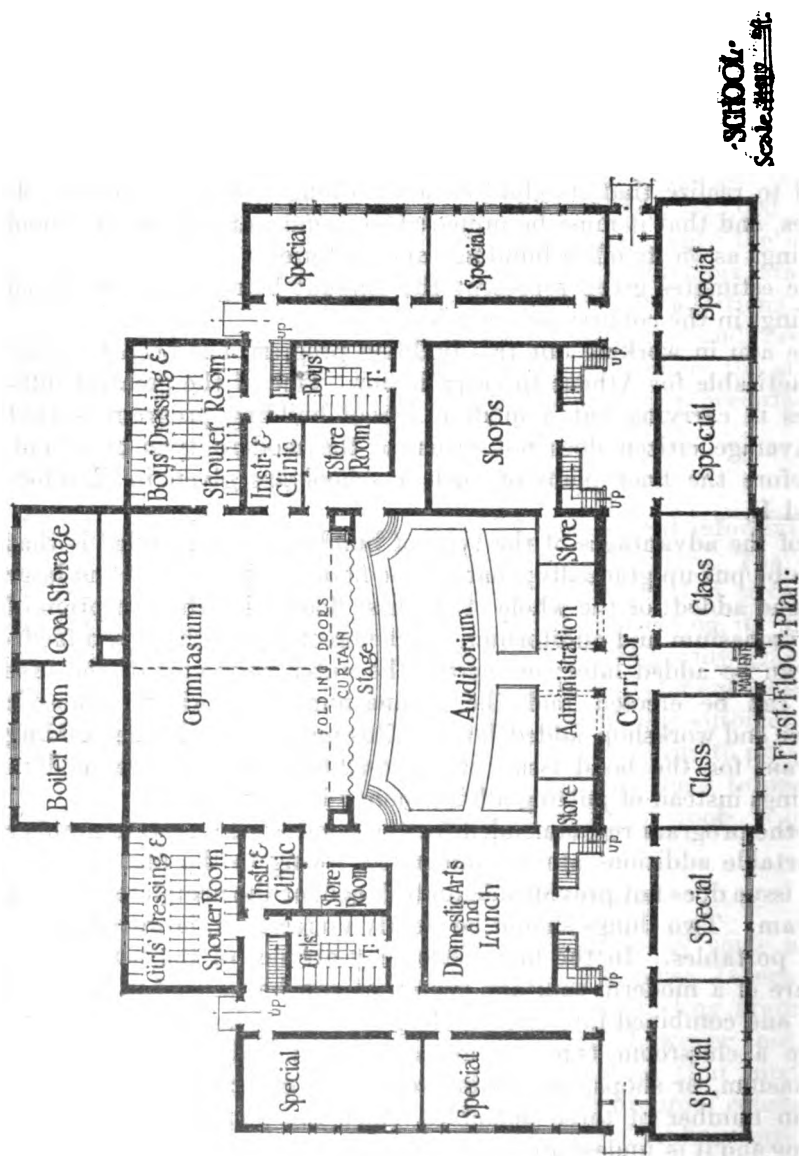
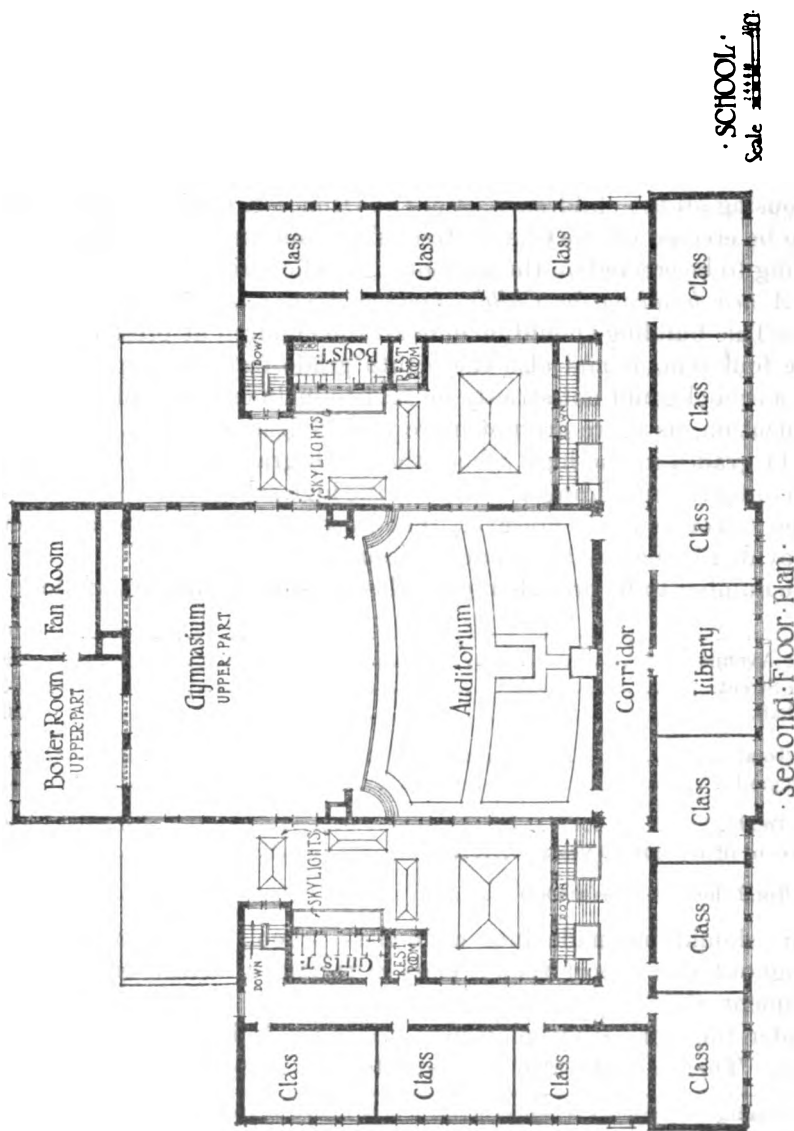


EXHIBIT A.—Junior High School, Buffalo, N. Y. This plan can be used for elementary schools, combination elementary and junior high schools, junior high school or high school, and for any number of classes.



**EXHIBIT B.—Junior High School, Buffalo, N. Y.**

### RECOMMENDATIONS FOR A PERMANENT BUILDING PROGRAM FOR WHITE SCHOOLS.

Two alternate plans are suggested for the permanent building program for white schools. One provides for two white elementary schools and one high school; the other provides for three elementary schools and one high school.

#### PLAN 1.

This plan provides for housing all the children east of the Oconee River in the Oconee School, to which an addition should be built; for housing all the children west of the Oconee River in a new building to be erected on the Chase Street site; and for a new high-school building to be erected on the present high-school site.

1. *A new building for Childs, College Avenue, Baxter, and Nantahala.*—This building should include all the children at present in the above four schools and also the eighth grade from the high school. Such a school could not strictly be said to include junior high school organization, as there are not more than 8 grades, but as there are only 11 grades in the high school the ninth grade could not well be taken out without adding a twelfth to the high school. The buildings will be so constructed, however, that they can be added to in order to provide for these extra grades if desired.

The number to be provided for in this building would be as follows:

Childs.....	410
College Avenue.....	429
Baxter Street.....	305
Nantahala.....	220
<b>Total.....</b>	<b>1,364</b>
Eighth grade.....	132
<b>Total.....</b>	<b>1,496</b>
20 per cent increase in 10 years <sup>1</sup> .....	299
<b>Total (for a 45-class school).....</b>	<b>1,795</b>

This should be made into a 46-class school. It is understood throughout this report that a class is reckoned on the basis of an enrollment of 40 pupils per class.

Under the work-study-play plan, there would be needed 23 classrooms. There should also be 1 auditorium, 2 gymnasiums, and 13

<sup>1</sup> In estimating the percentage of increase of growth to be allowed for the next 10 years the following factors are considered: The per cent of increase in the last 10 years checked by the percentage of increase in the last 6 years—which covers the war period—and the location of the school. For example, the enrollment in Childs, College Avenue, Baxter, and Nantahala increased 24.5 per cent in the past 10 years, but in the last 6 years it increased by only 10 per cent, therefore it seems fair to allow for an increase of not more than 20 per cent for the next 10 years. In the case of the Negro schools the enrollment in the Newtown, West Athens, and Reese Street Schools has increased 64 per cent in the last 10 years but has fallen off in the last 6. But, because of the annexation of the new territory which has so greatly increased the enrollment in the West Athens School during the last year (50 per cent), it seems fair to allow for an increase of approximately 40 per cent in these three schools in the next 10 years.

special rooms. It is possible to have any kind of special rooms that the school authorities and parents desire. For example, they could be arranged as follows: Four shops for boys (manual training, print shop, forge, and metal shop), 1 cooking room and 1 sewing room, 1 mechanical drawing room and 1 freehand drawing room, 1 music room, 1 nature-study room for the younger children, 1 chemistry laboratory and 1 physics laboratory for the older children, and 1 library. This would make a school building of 36 units, without counting the auditorium and 2 gymnasiums.<sup>13</sup>

The cost of a 36-unit building at \$12,000 per unit would be \$432,000. The equipment would come to \$78,000, on the basis of \$2,000 for equipment per unit, counting 1 auditorium and 2 gymnasiums as an additional 3 units. The total cost then for the building and equipment would be \$510,000.

Under the traditional plan 23 additional classrooms would be needed. This would require another floor. The classroom cost in this case would be at the rate of \$10,000 each, or a total of \$230,000. The additional equipment would come to \$46,000. This makes the total cost for the building under the traditional plan \$786,000, as compared with \$510,000 on the work-study-play plan.

The objection might be made that consolidating all these schools into one makes the distance too great for the children to travel. As a matter of fact, no child would have to go more than a mile, and some children are already walking that distance to attend these schools, but even when they have to go as far as a mile, it is better to transport children to a modern up-to-date school than to try to accommodate them in small, inadequate buildings near home. The city has much to learn from the country in respect to the value of consolidating schools.

2. *An addition for Oconee School.*—The Oconee School should house all the children from the first grade through the eighth on the east side of the Oconee River. The enrollment to be provided for would be as follows:

Present enrollment, grades 1-6.....	250
Estimated number in seventh and eighth grades <sup>14</sup> .....	80
Total.....	330
44 per cent increase in 10 years.....	145
Total (12 classes).....	475

This makes a school of 12 classes. Under the work-study-play plan 6 classrooms would be needed. The school should also have 1

<sup>13</sup> See Exhibit A for type of building recommended. In order to adapt it to a 46-class school, 11 classrooms would have to be added either in a third story or to the wings.

<sup>14</sup> The principal has a list of 75 children, 6-15 years of age, in the district, who at present are not attending public school.

auditorium, 1 gymnasium, and 4 special rooms, for example, 1 nature-study room, 1 manual-training room, 1 cooking room, and 1 drawing room. This makes 10 units.

There are at present available in the existing building 6 classrooms. An addition is therefore needed for this building. It is recommended

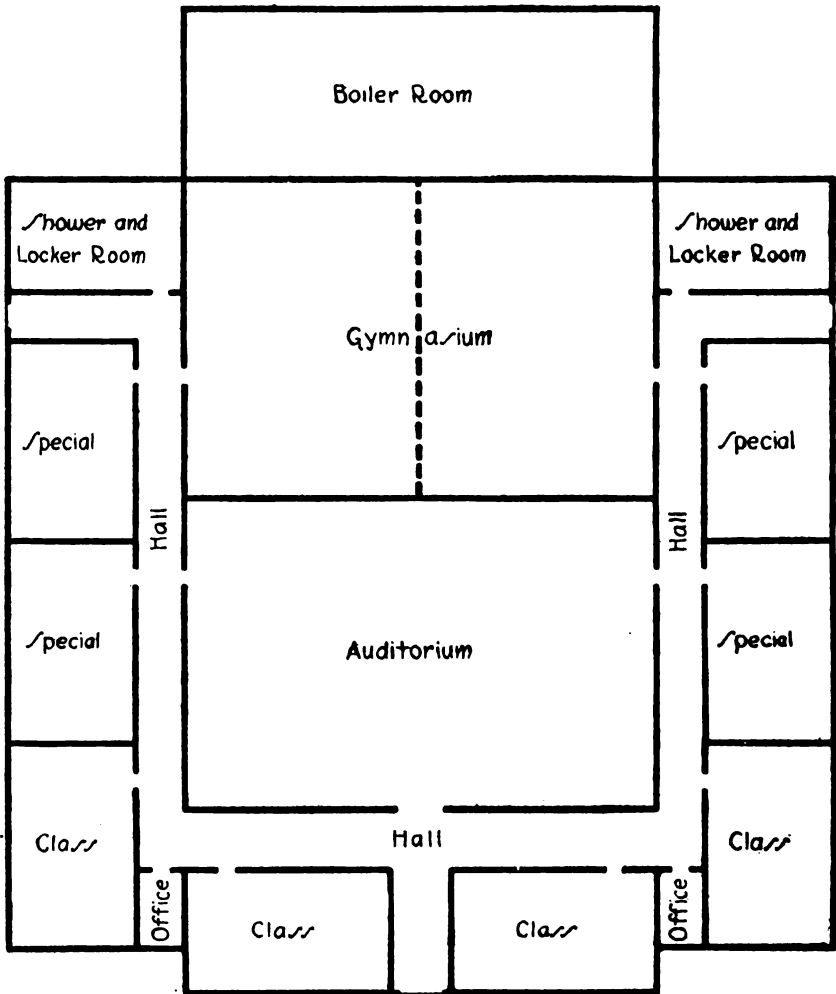


EXHIBIT C.—Suggested addition for Oconee School. This plan, with the addition of two rooms, is also applicable for Baxter School.

that the 2 classrooms at the rear of the building be torn down, and an addition of 6 units, an auditorium and a gymnasium, be attached to the present building. The building thus reconstructed would have the auditorium and gymnasium on the ground floor directly facing the front door, and 2 wings on either side of that portion of the



building which now contains the 4 classrooms. A rough drawing of such an addition is given in Exhibit C.

The cost of such an addition would be \$112,120, and the equipment would be \$16,000, making a total of \$128,120. This cost is based upon the actual building plans for this school, herewith submitted.

Under the traditional plan six additional classrooms would be needed, at a cost of about \$60,000 plus equipment \$12,000, making a total of \$72,000, or a grand total under the traditional plan of \$200,120, as over against \$128,120 under the work-study-play plan.

3. *New building for the high school.*—The high school now has four grades—the eighth, ninth, tenth, and eleventh. It is proposed under this plan to make it a three-year school by sending the eighth grade to the new building, on Chase Street. The enrollment in the three grades is 213 pupils. Allowing for an increase of 56 per cent in the next 10 years, or 119 pupils, the number to be provided for is 332. Fortunately, the high school has ample grounds, but the present building, which is nothing but an old courthouse, should be torn down. A new building should be erected to contain 6 rooms for academic work in English, history, Latin, Spanish, mathematics, and French, and 14 special rooms arranged as follows: Science—1 chemistry room, 1 physics, 1 biology; shops—1 wood-working, 1 foundry, 1 forge, 1 machine shop, 1 pattern shop, 1 cooking, 1 sewing, 1 mechanical drawing, 1 freehand drawing, 1 library, and 1 music room.

This makes 20 units plus an auditorium and 2 gymnasiums. The cost of 20 units at \$12,000 would be \$240,000. The equipment of 23 rooms at \$2,000 would be \$46,000, making a total of \$286,000. When a building, however, is as small as this, the cost increases. Therefore, it is impossible to include the cost of the auditorium and gymnasium in the \$12,000 unit cost. It is necessary to provide an additional \$100,000 for the auditorium and gymnasium, making a total for the whole building of \$386,000. The equipment would be \$46,000. Under the traditional plan the cost will be practically the same, since the high school is departmentalized throughout.

**SUMMARY OF COST OF DESIRABLE PERMANENT BUILDING PROGRAM  
FOR WHITE SCHOOLS.**

**PLAN 1.—On the basis of two elementary schools and one high school.**

**(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.**

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
One new building for Childs, College Avenue, Baxter, and Nantahala..... 1,840 pupils. 46 classes. 23 classrooms. 13 special rooms. 1 auditorium. 2 gymnasiums.	1,840	\$78,000	\$432,000	\$510,000
An addition for Oconee School..... 1 auditorium. 1 gymnasium. 2 classrooms. 4 special rooms.	480	16,000	112,120	128,120
A new building for the high school..... 332 pupils. 6 classrooms. 14 special rooms. 1 auditorium. 2 gymnasiums.	332	46,000	386,000	432,000
<b>Total.....</b>	<b>2,652</b>	<b>140,000</b>	<b>930,120</b>	<b>1,070,120</b>

**(b) TRADITIONAL PLAN—CAPACITY AND COSTS**

One new building for Childs, College Avenue, Baxter, and Nantahala..... 1,840 pupils. 46 classes. 46 classrooms. 13 special rooms. 1 auditorium. 2 gymnasiums.	1,840	\$124,000	\$662,000	\$786,000
An addition for Oconee School..... 1 auditorium. 1 gymnasium. 4 classrooms. 4 special rooms.	480	28,000	172,120	200,120
A new building for the high school..... 332 pupils. 6 classrooms. 14 special rooms. 1 auditorium. 2 gymnasiums.	332	46,000	386,000	432,000
<b>Total.....</b>	<b>2,652</b>	<b>198,000</b>	<b>1,220,120</b>	<b>1,418,120</b>

**PLAN 2.**

Plan 2 is worked out on the basis of three elementary schools and a high school. The difference between plans 1 and 2 is that plan 2 provides for a new 6-grade building for Baxter School in addition to the new building for the Chase Street site. Although under ordinary circumstances it would be undesirable to put up such a small building as would be necessary for the Baxter School, yet on account of the distance from Chase Street and the development of the city in that direction the erection of a permanent building for the younger children in the sixth grade of the Baxter School might be justified. It depends entirely on whether the board of educa-

tion wishes to adopt the policy of having some small 6-grade schools. Under such a plan the following buildings would have to be provided for:

1. *A new building for Childs, College Avenue, Nantahala, seventh grade of Baxter, and the eighth grade from the high school.*—The number to be provided for would be as follows:

Childs.....	410
College Avenue.....	429
Nantahala.....	220
Seventh grade of Baxter.....	40
Eighth grade from the high school.....	132
Total (in a 30-class school).....	1,231
20 per cent increase in 10 years.....	246
Total (37 classes).....	1,477

This should be made into a 38-class school. The number of classrooms needed would be 19, the number of special rooms 11, total units to be provided for 30, in addition to 1 auditorium and 2 gymnasiums.

The cost of 30 units, at \$12,000, would be \$360,000. The equipment would be \$66,000, or a total of \$426,000.

Under the traditional plan 19 more rooms would be needed, at a cost of \$10,000, or \$190,000. Additional equipment would be \$38,000, making an additional cost of \$228,000, or a grand total under the traditional plan of \$654,000, as over against \$426,000 under the work-study-play plan.

2. *A new building for 6 grades at Baxter School.*—The enrollment to be provided for would be as follows:

Enrollment minus seventh grade.....	265
11 per cent increase in 10 years.....	29
Total (8 classes).....	294

Under the work-study-play plan, it would be necessary to provide 4 classrooms and 4 special rooms—1 shop for boys, 1 cooking room, 1 nature-study and drawing room, 1 music room—making 8 units, together with an auditorium and gymnasium. The same plan for a building that is proposed for the Oconee School could be used for the Baxter School, with an addition of 2 classrooms. These two extra rooms would cost \$12,960, the equipment \$1,000, making a total of \$13,960. The cost of the Oconee School was \$128,120, which, in addition to the \$13,960, would make the total cost for Baxter \$142,080.<sup>15</sup>

Under the traditional plan, 4 additional classrooms would be needed at a cost of \$40,000, plus equipment \$4,000, making a total of \$44,000, or a grand total under the traditional plan of \$186,080.

<sup>15</sup> See Exhibit C. The classrooms can be added at the front of the building or at the rear.

3. *An addition for the Oconee School.*—The plan and cost of this building would remain the same as under Plan 1, that is, \$128,120 under the work-study-play plan; or \$200,120 under the traditional plan.

PLAN 2.—*On the basis of three elementary schools and one high school.*

(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
One new building for Childs, College Avenue, seventh grade Baxter, Nantahala, and eighth grade.....	1,520	\$66,000	\$360,000	\$426,000
38 classes.				
19 classrooms.				
11 special rooms.				
1 auditorium.				
2 gymnasiums.				
One new building for 6 grades of Baxter.....	320	17,000	125,080	142,080
8 classes.				
4 classrooms.				
4 special rooms.				
1 auditorium.				
1 gymnasium.				
An addition for Oconee.....	480	16,000	112,120	128,120
1 auditorium.				
1 gymnasium.				
2 classrooms.				
4 special rooms.				
A new building for the high school.....	332	46,000	386,000	432,000
332 pupils.				
6 classrooms.				
14 special rooms.				
1 auditorium.				
2 gymnasiums.				
Total.....	2,652	145,000	963,200	1,128,200
Land.....				5,000
Grand total.....				1,133,200

(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

One new building for Childs, College Avenue, seventh grade Baxter, Nantahala, and eighth grade.....	1,520	\$104,000	\$330,000	\$654,000
38 classes.				
38 classrooms.				
11 special rooms.				
1 auditorium.				
2 gymnasiums.				
One new building for 6 grades of Baxter.....	320	32,000	212,120	244,120
8 classes.				
8 classrooms.				
4 special rooms.				
1 auditorium.				
1 gymnasium.				
An addition for Oconee.....	480	28,000	172,120	200,120
1 auditorium.				
1 gymnasium.				
4 classrooms.				
4 special rooms.				
A new building for the high school.....	332	46,000	386,000	432,000
332 pupils.				
6 classrooms.				
14 special rooms.				
1 auditorium.				
2 gymnasiums.				
Total.....	2,652	210,000	1,320,240	1,530,240
Land.....				5,000
Grand total.....				1,535,240

**RECOMMENDATIONS FOR A PERMANENT BUILDING PROGRAM FOR NEGRO SCHOOLS.**

In 1910-11 there were 806 children in the Negro schools. In 1919-20 there were 1,065, an increase of 32.1 per cent in 10 years. There are at present four school buildings for Negro children, the High and Industrial School, West Athens School, and Newtown School, which take care of all the children to the west of the Oconee River; and the East Athens School, which takes care of all the children east of the Oconee River.

As is the case with the white schools, there are hardly enough children in the Negro schools to make one fair-sized school; but, because of the geographical location of the population, it is not possible to house all the children in one school. The East Athens School is in a district by itself and should be treated as a separate unit, taking care of all the children to the east of the Oconee River. All the children on the west side of the Oconee River should be housed in a new building to be erected for the High and Industrial School.

The detailed recommendations follow:

1. *A new building for the High and Industrial, West Athens, and Newtown Schools.*—Athens is justly proud of the fact that it has the first and only Negro high school in Georgia. Among the many educational achievements of Athens few are more significant than the development of this school. The fine spirit of the school and the progressive and thorough work being done there are things of which the city may well be proud. But even a slight study of the situation is sufficient to indicate that the needs of the school have far outgrown the building and equipment, and that it is now laboring under very serious handicaps in the matter of tools with which to carry on its work.

One of the most serious handicaps is the fact that the size of the school has been decreased by taking the lower grades out and sending them to the Newtown School, a building which should never have been used for school purposes. A glance at the enrollment figures shows that ever since the lower grades were taken out of the High and Industrial School, the net enrollment in the Newtown and High and Industrial districts has fallen off.<sup>16</sup> For example, in 1916-17, when the High and Industrial School included grades 1-11, the enrollment for the two schools was 546, whereas in 1919-20 when the High and Industrial School had only grades 4-11 the enrollment for the two districts dropped to 325. This falling off is not due to fewer children in that part of the city, for in 1910-11 there were 456 west of the Oconee River and in 1919-20 there were 747, a gain of 291, or 64 per cent in 10 years. Moreover, there was no falling off in enrollment in the Newtown and Reese Street districts until the lower

<sup>16</sup> See enrollment in public schools, 1913-14 to 1919-20 inclusive, Appendix IV.

grades were taken out of the High and Industrial School, 1918-19, when the enrollment in the elementary grades for these two districts dropped suddenly. There was no decrease in the West Athens district and there was none to speak of in the East Athens district in that year. It does not seem reasonable to suppose that the influenza epidemic hit this district so much harder than any other. Rather, it is reasonable to suppose that when children are transferred to a building like the Newtown School, they simply do not go to school. Failure on the part of the city to provide modern school buildings ultimately always means that fewer and fewer children get an education. Customers will not come to a business firm which is housed in an old, tumble-down, insanitary building; hence modern office buildings are erected. The children are the customers of the schools. Why should they be expected to go to school in an old insanitary building? What has it to offer them? There are no laws which can compel attendance in such a building as the Newtown School.

The West Athens School is a somewhat better building than the Newtown School, but it is an old, wooden frame structure, badly constructed, and with no modern facilities. The cost of reconstructing it would be out of all proportion to the original value of the plant. Furthermore, the number of children in the school is too small to justify erecting a new building for it.

In other words, it is important both from an educational and financial standpoint to house all the children on the west side of the Oconee River in a new building to be erected on the present High and Industrial School site. This would make a combination elementary and high school, the total enrollment of which would be about 1,200 children, or the minimum necessary for a modern, economical plant. The original cost of such a plant may seem large, but it should be remembered that by erecting such a school building the cost of maintaining three separate buildings is eliminated. The cost of this one plant would not only cover the cost of three separate day schools but it would also provide for the evening High and Industrial School. Therefore, the plan recommended represents the cost for four schools, not one. Furthermore, such a building would provide a school plant for Negro children which would not only be a credit to the city but an example to be followed by all the other cities in the State.

The objection might be made that the consolidation of these three schools in one plant at the High and Industrial School would necessitate children having to walk too long a distance to school. As a matter of fact, however, no pupil under such a consolidation would have a farther distance to walk than many pupils have to walk now. The districts at present overlap; for example, 10 pupils from the High and Industrial district go to Newtown School, and 41 pupils

from the Newtown district go to the High and Industrial School; 103 pupils from the West Athens district go to the High and Industrial School, and 68 pupils from the High and Industrial district go to the West Athens School. The majority of pupils in the West Athens district would not be more than a mile and a quarter from the High and Industrial School. At the present time there are pupils attending the Newtown School and the West Athens School who live a mile and a half from each of those schools.

The enrollment to be provided in this combination elementary and high school would be as follows:

High and Industrial High School.....	111
Elementary.....	163
Newtown.....	182
West Athens, 1920.....	291
<b>Total.....</b>	<b>747</b>
Increase in 10 years (39 per cent) .....	290
Increase in enrollment in West Athens due to extension of territory.....	109
<b>Total (in 29 classes).....</b>	<b>1,146</b>

Make this a school of 30 classes, that is, 6 high-school classes of 30 pupils each and 24 elementary classes of 40 pupils each. Providing merely for the activities at present carried on in the school, the number of classrooms and special rooms would be as follows: 4 classrooms for the high-school students for English, mathematics, Latin, and history; 12 elementary classrooms and 12 special rooms; for example, 1 chemistry laboratory, 1 physics laboratory, 5 shops (a foundry, forge, machine shop, woodworking, plastering), 1 cooking room, 1 sewing room, 1 mechanical drawing room, 1 music room, 1 library. The school now has all these subjects but no adequate rooms or equipment with which to teach them. There should also, of course, be an auditorium and 2 gymnasiums. This would make 28 units.

The cost of 28 units at \$12,000 would be \$336,000, and the cost of equipment would be \$62,000, making a total of \$398,000. This makes a per pupil cost of \$331, as over against a per pupil cost in the white high school of \$1,199.

Under the traditional plan 12 extra rooms would be needed at a cost of \$120,000 and equipment \$24,000, making a total of \$144,000 additional, or a grand total of \$542,000 under the traditional plan, as over against \$398,000 under the work-study-play plan.

2. *A new building for East Athens School.*—The present building for this school is an old wooden frame structure. It was built for 240 children and it contains 429. There are only 6 classrooms in the building, and these are nothing but bare rooms with the blackboards so placed that it is almost impossible for any children except those in the front row to read what is written on them. There is

no principal's office or teachers' rest room, and although the school is really a social center as well as a school where children are taken care of when they are sick or poorly clad, yet there are no cloakrooms and no rest room or clinic. There is no shop or cooking room, or auditorium or play room.

A new building should be erected which would serve both as a schoolhouse and a social center for this part of the town.

The enrollment to be provided for in this school is as follows:

Present enrollment.....	429
Sixth and seventh grades.....	80
Total.....	509
Eighteen per cent increase in 10 years.....	90
Total (in 15 classes).....	599

This should be a 16-class school (640 pupils). It will be necessary to have, in addition to an auditorium and a gymnasium, 8 classrooms and 6 special rooms, for example, 2 shops for boys, a cooking room, 1 sewing room, 1 drawing and nature study room, and 1 music room, making a total of 14 units. The total cost for this building would be \$200,000. This represents more than the \$12,000 unit cost, because a smaller building is always more expensive. The equipment for 16 units at \$2,000 would be \$32,000, making a total of \$232,000. Under the traditional plan 8 additional classrooms would be needed at a cost of \$80,000, which, with \$16,000 for additional equipment, would come to \$96,000, making a total cost under the traditional plan of \$328,000, as compared with \$232,000 under the work-study-play plan.

#### SUMMARY OF COST—PERMANENT BUILDING PROGRAM FOR NEGRO SCHOOLS.

*On basis of one elementary school and one combination elementary and high school.*

##### (a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
New building for High and Industrial School, West Athens and Newtown, ..... 30 classes, 1,200 pupils. 16 classrooms. 12 special rooms. 1 auditorium. 2 gymnasiums.	1,200	\$62,000	\$336,000	\$398,000
New building for East Athens..... 640 pupils. 8 classes. 4 classrooms. 4 special rooms. 1 auditorium. 1 gymnasium.	640	32,000	200,000	232,000
Total.....	1,840	94,000	536,000	630,000
Land.....				10,000
Grand total.....				640,000



On basis of one elementary school and one combination elementary and high school—Con.

(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

Building.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
New building for High and Industrial School, West Athens and Newtown..... 1,200 pupils. 30 classes. 28 classrooms. 12 special rooms. 1 auditorium. 2 gymnasiums.	1,200	\$89,000	\$456,000	\$542,000
New building for East Athens..... 640 pupils. 8 classes. 8 classrooms. 4 special rooms. 1 auditorium. 1 gymnasium.	640	48,000	286,000	328,000
Total.....	1,840	134,000	738,000	870,000
Land.....				10,000
Grand total.....				880,000

SUMMARY OF COST—PERMANENT BUILDING PROGRAM FOR WHITE AND NEGRO SCHOOLS.

PLAN 1.—(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
White schools.....	2,652	\$146,000	\$630,120	\$1,070,120
Land.....				
Negro schools.....	1,840	94,000	536,000	630,000
Land.....				10,000
Total.....	4,492	234,000	1,466,120	1,710,120

PLAN 1.—(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

White schools.....	2,652	198,000	1,220,120	1,418,120
Negro schools.....	1,840	124,000	736,000	870,000
Land.....				10,000
Total.....	4,492	332,000	1,956,120	2,298,120

PLAN 2.—(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

White schools.....	2,652	145,000	963,200	1,128,200
Land.....				5,000
Negro schools.....	1,840	94,000	536,000	630,000
Land.....				10,000
Total.....	4,492	239,000	1,519,200	1,773,200

PLAN 2.—(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

White schools.....	2,652	270,000	1,320,240	1,590,240
Land.....				5,000
Negro schools.....	1,840	134,000	736,000	870,000
Land.....				10,000
Total.....	4,492	344,000	2,056,240	2,415,240

### ATHENS HAS THE WEALTH TO CARRY OUT THE PERMANENT BUILDING PROGRAM PROPOSED.

The taxable wealth of Athens at present is given at \$14,900,000, including the recently annexed territory. It is possible to bond the city up to 7 per cent of the taxable wealth, \$1,043,000, but there are outstanding bonds at present for \$720,000, which leaves available at present for a bond issue \$323,000.

#### *Taxable wealth of Athens, Ga.*

Real property.....	\$8, 536, 125
Annexed territory.....	1, 400, 000
Personal property.....	4, 963, 875
Total taxable wealth at 60 per cent property valuation.....	14, 900, 000

Considering the fact that such a small amount as \$323,000 is available for a school building program, it would seem that the preceding permanent building program, which calls for a minimum of \$1,710,120, is far beyond the financial capacity of the city to carry out. As a matter of fact, however, if the true wealth of the city is considered, it is not beyond the financial capacity of Athens to carry out the permanent program.

At the present time property in Athens is assessed at 60 per cent valuation. If it were assessed at a 100 per cent valuation, the true taxable wealth would be \$24,833,333. Therefore, the amount of money available for bonds, at 7 per cent of the taxable wealth, would be \$1,738,333. Deducting the \$720,000 for outstanding bonds, there would be left \$1,018,333 available for a bond issue, if property were assessed at a 100 per cent valuation.

The fact remains, however, that property at present is not assessed at 100 per cent valuation, and therefore only \$323,000 is available for school building purposes this year. Consequently, a school building program has been worked out on the basis of the expenditure of the \$323,000 now available. In planning such a program two things have been borne in mind—to give relief to the schools where the need is most pressing and to work out the program so that it will fit into the permanent building program, thus avoiding waste in future building plans. Recommendations for a building program on the basis of the proposed bond issue will now be given.

### RECOMMENDATIONS FOR A BUILDING PROGRAM PLANNED ON THE BASIS OF A BOND ISSUE OF \$323,000.

It is obvious that almost any one of the new buildings planned would take most of the money now available to meet the needs of all the schools. Therefore it is undesirable to erect any one of the buildings in toto with the funds available in this bond issue, since that would make it impossible to give all the children increased

educational advantages. The funds have been so distributed in the following building program that *all* children will get the opportunity for healthy work and play as well as study in good classrooms. It is possible to accomplish this (1) by erecting parts of each of the buildings proposed and erecting them in such a way that they can be added to later on when additional funds are available; (2) by erecting modern portable units not only in the form of classrooms but of auditoriums, gymnasiums, shops, cooking rooms, and science rooms, so that all children may have the opportunity for these activities whether they are in temporary or permanent structures.

#### THE SCHOOLS MOST IN NEED OF RELIEF.

Baxter School, Oconee School, and the combination elementary and high school for Negro children are the schools which need relief immediately; the Baxter School because the building is utterly unfit for school purposes, and is in far worse condition than any other white school; the Oconee School because the congestion there is greater than in any other white school; and the combination elementary and high school for Negro children, because by starting this building the needs of three schools can be taken care of at once, whereas, if this were not done, it would be necessary to go to the expense of three sets of portable buildings, which would be an economic waste.

Both Childs and College Avenue Schools are fairly modern buildings, and if organized on the work-study-play plan there is plenty of room in these buildings not only for present enrollment but for growth for five years. The only additions needed would be a portable auditorium and gymnasium. No permanent building should be provided for Nantahala pending its inclusion in the new school building which should be erected for Childs, College Avenue, and Nantahala, but special facilities can be given to these children by means of modern portable auditorium, gymnasium, and shops. The needs of East Athens can also be taken care of by the addition of special facilities until a new building can be put up under the permanent building program.

#### RECOMMENDATIONS FOR THE WHITE SCHOOLS.

1. *A new building for Baxter School.*—The enrollment to be provided for in this school, allowing for 11 per cent increase in 10 years, is 338 children, or 8 classes. The whole of the building recommended in the permanent building program—4 classrooms, 1 shop for boys, 1 cooking room, 1 nature-study and drawing room, 1 music room, auditorium, and gymnasium—can be erected with the exception of the auditorium and gymnasium. The cost would be \$57,960. (See

Exhibit C for plan of building.) The equipment would be \$8,500, making the total cost of the building \$66,460. It is possible to secure a portable auditorium 30 by 60 feet, fully equipped with opera chairs and stage, for \$3,500,<sup>17</sup> and a portable gymnasium for the same amount. These units are eminently satisfactory, well lighted, well heated, and well adapted to the purposes for which they are built. The total cost, then, for Baxter School would be \$73,460.

Under the traditional plan, four additional rooms would be needed at a cost of \$40,000, which, with \$2,000 for additional equipment, makes a total of \$42,000, or a grand total, under the traditional plan, of \$115,460, which would be prohibitive with the funds available in the present bond issue.

2. *A new building for Oconee School.*—The enrollment to be provided for in this school is as follows:

Present enrollment, grades 1-6.....	250
Estimated number in seventh and eighth grades.....	80
Total.....	330
44 per cent increase in 10 years.....	145
Total in 12 classes.....	475

As was pointed out in the permanent building program, six classrooms would be needed under the work-study-play plan. The school should also have one auditorium, one gymnasium, a nature study room, manual-training room, and drawing room. This makes 10 units.

There are available in the existing building 6 classrooms. The addition proposed would be added at the rear of the building, after the two rear classrooms had been torn down. This building would contain six units, an auditorium, and gymnasium.

The whole of this addition with the exception of the auditorium and gymnasium could be erected with the funds available in the present bond issue. The cost of the building minus the gymnasium and auditorium would be \$45,000 and the equipment \$7,500, making a total cost of \$52,500. It would be necessary to erect a portable auditorium for \$3,500 and a portable gymnasium for the same amount, making a total cost for this school of \$59,500. The only difference from the plan proposed in the permanent building program would be that the auditorium and gymnasium would be in portable buildings for the present.

Under the traditional plan six more classrooms would be needed, \$60,000, with \$3,000 for equipment, making \$63,000, or a total of \$122,500.

3. *Childs Street School.*—This school is now housed in a comparatively new school building, fairly modern. It has eight classrooms

<sup>17</sup> Cost of portable auditorium \$1,800, foundation and cost of erection \$700, installation of electric lights, plumbing, and heating, approximately \$1,000.

and three rooms in the basement, one now used as a classroom and another as a cooking room, with a small room for sewing. There is also a vacant room in the basement, which could be used as a shop. The enrollment is now 410 pupils, and a 20 per cent increase in five years would make 492 pupils, or 12 classes to provide for.

Under the work-study-play plan six classrooms would be needed, and there should be four special rooms—for example, one manual-training shop, one nature-study room, one cooking room, and one drawing room. This makes a total of 10 units, but there are already 11 rooms in the building. The eleventh room could be used for a library if so desired, or a music room, or a teachers' rest room. Therefore, the only thing to provide for in this school is a portable auditorium and gymnasium, \$7,000. There is plenty of space on the grounds for the erection of these two units.

It will be necessary, however, to have equipment for the boys' shop, \$2,000, and for the cooking room, \$3,000. Furthermore, an additional item of \$5,000 should be provided for repairs around the building, for the toilets, etc., and for equipment for the playground. The total cost for this school under the work-study-play plan would be as follows:

Movable auditorium.....	\$3,500
Movable gymnasium.....	3,500
Equipment for boys' shop.....	2,000
Equipment for cooking so it can be used as a cafeteria.....	3,000
For repairs, plumbing, playground equipment, etc.....	5,000
	<hr/>
	17,000

Under the traditional plan it would be necessary to have 6 additional portable classrooms at a cost of \$1,000 each, which would make the total cost under the traditional plan \$23,000.

4. *College Avenue School*.—This school is also housed in a comparatively new building of 13 rooms. As a permanent proposition it would be most undesirable to keep two small buildings like the College Avenue and Childs Street Schools, but inasmuch as the amount available in the bond issue is so limited, it will be necessary to use this building for the time being, and there is ample room in it if the school is organized on the work-study-play plan.

The present enrollment is 429 pupils. Make it into a 12-class school. There has been practically no increase in the past 10 years, due to the fact that the children have been transferred to the Childs Street School; under the work-study-play plan it would be necessary to have 6 rooms and 4 special rooms, 1 manual training shop, 1 nature study room, 1 cooking room, and 1 drawing room, or a total of 10 units.

But this building has 13 rooms. Therefore, 10 of them can be used for the classrooms and special rooms and the partitions between the cooking room and the 2 rooms on either side of it on the

second floor can be torn out and these 3 rooms made into an auditorium. A portable gymnasium should be put up on the grounds to the north of the building. Additional equipment will be needed and the additional cost will be as follows:

Gymnasium.....	\$3,500
Equipment for shop.....	2,000
Equipment for cooking room.....	2,000
Playground equipment, etc.....	2,000
Repairs.....	2,000
Total.....	11,500

Under the traditional plan 6 more classrooms would be needed, \$6,000, and there is no space on the school grounds on which to erect them. The total cost would be \$17,500.

5. *Nantahala School*.—This district needs not only adequate classroom facilities but a school plant which will be a social center for the neighborhood. It needs particularly an auditorium for meetings, plays, etc., and a gymnasium for recreation in the evening as well as in the day. But the school is too small to justify the erection of a permanent building now, in view of the fact that in a permanent building program Nantahala should be combined with Childs and College Avenue and the seventh and eighth grades of Baxter in a new building on Chase Street.

It is important, however, that the children in these schools, pending the erection of such a building, should have facilities for shops, nature study rooms, auditoriums, and gymnasiums, and it is possible to provide such facilities by the addition of portable units equipped for these activities.

The net enrollment at present is 220. Allowing for 14 per cent increase in five years, at which time a permanent building program should be carried out, there are 250 children, or eight classes, to provide for. Four classrooms and four special rooms would be sufficient. At present there are available six rooms, i. e., counting as one the two rooms that were originally made out of one. Four of these rooms could be used as classrooms, one could be used as a nature study room, and one as a drawing room. It would then be necessary to provide portable buildings for the following units:

Auditorium.....	\$3,500
Gymnasium.....	3,500
Shop.....	2,000
Cooking room.....	3,000
Repairs and play equipment.....	2,000
Total.....	14,000

Under the traditional plan four more classrooms would be needed, \$4,000, making a total cost of \$18,000. About \$5,000 would be needed for additional land under the work-study-play plan and \$20,000 under the traditional plan.

## NEGRO SCHOOLS.

Two alternate plans are submitted for the Negro schools. The first, which would be by far the most economical in the long run, has been worked out on the basis of providing for two Negro schools, one at East Athens and one on the present High and Industrial School site. This latter school would be a consolidation of the High and Industrial, West Athens, and Newtown Schools, and it is proposed that the first floor of the new building recommended in the permanent building program be erected now to accommodate these pupils. The second plan is worked out on the basis of providing for three Negro schools—one at East Athens, one at West Athens, and one at the High and Industrial, which would combine the High and Industrial and Newtown Schools.

## PLAN 1.

1. *A new building for the High and Industrial School and West Athens and Newtown Schools.*—The enrollment to be provided for in these three schools is as follows:

High and Industrial:	
High school.....	111
Elementary.....	163
Newtown.....	182
West Athens, 1920.....	291
Total.....	747
Increase in 10 years (39 per cent).....	290
Increase in enrollment in West Athens, due to extension of territory.....	109
Total (in 29 classes).....	1,146

Over a 10-year period this should be counted as a 1,200 pupil, or a 30 class school, but the actual number to be provided for at present would be 856 pupils, of whom 745, or 20 classes, are elementary school pupils. It will be necessary, then, to provide 4 rooms for high-school pupils—for English, mathematics, Latin, and history—and 10 classrooms under the work-study-play plan for the 20 elementary classes.

The present building has 8 classrooms and 1 small room in the basement used as a shop. There is also an additional building with a cooking room and sewing room. By erecting the outer perimeter of the first floor of the proposed new building for this school (see diagram of building in Exhibit A), 12 permanent rooms would be provided, which could be used either as classrooms or as shops. These 12 rooms, with the 11 already available, would make 23 units. Fourteen of these would have to be used as classrooms, as indicated above. This would leave the shop in the basement of the present building, the present cooking and sewing room, and six units in the new building which would be used for special activities—one for

science, one for drawing, and four for shops, making, with the existing facilities, nine special activity rooms for the whole school.

The cost of erecting this portion of the permanent building would be \$78,631, the equipment would be \$27,000, making a total cost of \$105,631. It would be necessary to have a portable gymnasium and auditorium, \$7,000, and it would also be necessary to set aside \$5,000 to buy additional land for the building and playground. This makes a total cost of \$112,631 for the building and equipment and \$5,000 for the land.

It would appear from these figures as though more money were being spent on this one school than on any other item, but it should be remembered that this amount of money is being spent on three schools. As a matter of fact, the per capita building cost for this school is only \$98, as over against \$125 for the addition to Oconee School, and \$250 for the Baxter School; and if the night school, with its enrollment of 200, is counted in, as it should be, the per capita cost would be even less. In other words, the most economical method of meeting the very great congestion in the Negro schools is by consolidating these three schools in a modern up-to-date plant, the first floor of which can be erected at this time. But such consolidation without adequate accommodations would be out of the question.

It would be desirable to erect this part of the permanent building for these three Negro schools at the earliest possible date, not only because it is the best solution of the housing problem, both from an educational and a financial standpoint, but also because such an addition, with adequate shop facilities, will greatly aid in carrying out the rest of the building program. The shop work done in this school is exceptionally good, and there is no reason why the erection of the portable buildings, both for this school and the other schools, should not be carried on as part of the practical shop work of the High and Industrial School. This would be desirable from an educational standpoint for the student in the High and Industrial School, and would make the erection of the portable buildings more economical than would otherwise be the case.

Under the traditional plan it would be necessary to have 10 additional classrooms, at a cost of nearly \$100,000, with \$10,000 for equipment, making an additional \$110,000, or a grand total under the traditional plan of \$222,631, which would make the erection of this building impossible under the present bond issue.

#### NUMBER OF TEACHERS NEEDED IN THE CONSOLIDATION OF THE HIGH AND INDUSTRIAL SCHOOL, WEST ATHENS AND NEWTOWN.

The question might be raised as to whether there are sufficient teachers for this consolidation. At present in the three schools there are 15 regular teachers and 4 specials, or 19 in all, and 3 princi-



pals. Under the consolidation under the work-study-play plan, there would be needed in addition to the principal of the whole school, 4 high-school teachers, 10 elementary teachers, and 5 special teachers—science, drawing, head of manual work, cooking, sewing—exclusive of the other 4 shop teachers; 1 auditorium teacher, and 2 gymnasium teachers. That makes a total of 22 teachers, exclusive of the 4 shop teachers. But there are available 22 teachers in addition to the principal, so that there are at present available sufficient teachers for the consolidated school with the exception of a supervisor for the primary grades and the 4 shop teachers.

With regard to the shop teachers, it is recommended that the plan carried out in some school systems of employing regular artisans for this work be adopted in this school. Under such a plan the men who teach shop work are artisans who are employed to work 8 hours a day to do the repairs and construction about the building, and the boys who elect to work with them on this practical work.<sup>18</sup> Under such a plan there is no danger of shop work degenerating into an academic subject, as too often happens. Furthermore, under such a plan the shop work can be made self-supporting, as is done in some school systems.

2. *East Athens School*.—The present enrollment in the East Athens School is 429 pupils. With a 10 per cent increase for 5 years it would be 471, or 12 classes. It is impossible to erect even a part of the permanent building for this school with the present bond issue, but it is possible to give modern school facilities to the children in portable shops, auditorium, and gymnasium.

Under the work-study-play plan it would be necessary to have six classrooms and four special rooms, together with an auditorium and gymnasium. There are at present available in the building six rooms. Two of the best of these rooms could be used as classrooms, the others could be used for shops. It would then be necessary to erect portable units as follows:

One auditorium.....	\$3, 500
One gymnasium.....	3, 500
Four classrooms.....	4, 000
Equipment for shop.....	1, 000
Equipment for cooking.....	2, 000
	<hr/>
	14, 000
General repair.....	2, 000
To make it a unit.....	4, 000
	<hr/>
Total.....	20, 000

The total cost of this building would be \$20,000. Under the traditional plan six more classrooms would be needed, at a cost of \$6,000; total, \$26,000.

<sup>18</sup> The productive shop work in the public schools of Gary, Ind., is one example of how such work has been organized.

## PLAN 2 FOR NEGRO SCHOOLS.

The program for the Negro schools above described is strongly recommended as the most economical and satisfactory building program for the funds available. Plan 2 providing for three Negro schools instead of two would necessitate temporary portable structures for the High and Industrial School and West Athens School, and would be expensive in the long run. The cost for the Negro schools under such a plan would be \$101,000 instead of \$132,631, but there would be the additional cost of maintaining three plants instead of two. Furthermore, when the schools are combined and a new building erected, the city would be left with \$55,000 worth of portable buildings on its hands, which is more than the original difference in cost between the two plans.

## SUMMARY OF COST OF BUILDING PROGRAM ON THE BASIS OF THE \$323,000 BOND ISSUE.

## Plan 1.

## (a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
<b>WHITE SCHOOLS.</b>				
New building for Baxter School.....	320	\$8,500	\$64,960	73,460
320 pupils.				
8 classes.				
4 classrooms.				
4 special rooms.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
An addition for Oconee School.....	480	7,500	52,000	59,500
480 pupils.				
12 classes.				
6 classrooms.				
4 special rooms.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
Two portables for Childs School.....	480	5,000	12,000	17,000
480 pupils.				
12 classes.				
1 auditorium.....				\$3,500
1 gymnasium.....				3,500
Equipment, shop.....				2,000
Equipment, cooking.....				3,000
Repairs.....				5,000
One portable for College Avenue.....	480	6,000	5,500	11,500
480 pupils.				
12 classes.				
1 gymnasium.....				\$3,500
Equipment, shop.....				2,000
Equipment, cooking.....				2,000
Equipment:				
Playground.....				2,000
Repairs.....				2,000
Four portables for Nantahala.....	320		14,000	14,000
320 pupils.				
8 classes.				
1 auditorium.....				\$3,500
1 gymnasium.....				3,500
1 shop.....				2,000
1 cooking room.....				3,000
Repairs.....				2,000
Total.....	2,080	27,000	148,460	175,460
Land.....				5,000
Total for white schools.....				180,460

## Plan 1—Continued.

## (a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
<b>NEGRO SCHOOLS.</b>				
One floor of new building for High and Industrial School, West Athens and Newtown Schools.....	1,200	\$27,000	\$85,631	\$112,631
1,200 pupils.				
30 classes.				
6 classrooms.				
6 special rooms.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
Six portables for East Athens.....	480	3,000	17,000	20,000
480 pupils.				
12 classes.				
1 auditorium.....				\$3,500
1 gymnasium.....				3,500
4 classrooms.....				4,000
Equipment, shop.....				1,000
Equipment, cooking.....				2,000
Repairs.....				2,000
To make single unit of building.....				4,000
Total.....	1,680	30,000	102,631	132,631
Land.....				5,000
Total for Negro schools.....	1,680	30,000	102,631	137,631
Grand total for white and Negro schools.....	3,760	57,000	251,091	318,091

## (b) TRADITIONAL PLAN—CAPACITY AND COSTS.

<b>WHITE SCHOOLS.</b>				
New building for Baxter School.....	320	\$10,500	\$165,960	\$116,460
320 pupils.				
8 classes.				
8 classrooms.				
4 special rooms.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
An addition for Oconee School.....	480	10,500	112,000	122,500
480 pupils.				
12 classes.				
12 classrooms.				
4 special rooms.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
Eight portables for Childs School.....	480	5,000	18,000	23,000
480 pupils.				
12 classes.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
6 classrooms.....				6,000
Equipment, shop.....				2,000
Equipment, cooking.....				3,000
Repairs.....				5,000
Seven portables for College Avenue.....	480	6,000	11,500	17,500
480 pupils.				
12 classes.				
1 portable gymnasium.....				\$3,500
6 portable classrooms.....				6,000
Equipment, shop.....				2,000
Equipment, cooking.....				2,000
Equipment, play.....				2,000
Repairs.....				2,000
Eight portables for Nantahala.....	320		18,000	18,000
320 pupils.				
8 classes.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
4 portable classrooms.....				4,000
1 shop.....				2,000
1 cooking room.....				3,000
Repairs.....				2,000
Total.....	2,080	32,000	265,460	297,460
Land.....				20,000
Total for white schools.....	2,080	32,000	265,460	317,460

## Plan 1—Continued.

## (b) TRADITIONAL PLAN—CAPACITY AND COSTS—Continued.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
<b>NEGRO SCHOOLS.</b>				
Two floors of new building for High and Industrial, West Athens and Newtown.....	1,200	\$37,000	\$185,631	\$222,631
1,200 pupils.				
30 classes.				
16 classrooms.				
6 special rooms.				
1 portable auditorium.....				\$3,500
1 portable gymnasium.....				3,500
Twelve portables for East Athens.....	480	3,000	23,000	26,000
480 pupils.				
12 classes.				
1 auditorium.....				\$3,500
1 gymnasium.....				3,500
10 classrooms.....				10,000
Equipment, shop.....				1,000
Equipment, cooking.....				2,000
Repairs.....				2,000
To make single unit of building.....				4,000
Total.....	1,680	40,000	208,631	248,631
Land.....				5,000
Total for Negro schools.....	1,680	40,000	208,631	253,631
Grand total for white and Negro schools.....	3,760	72,000	474,091	571,091

Plan 2 is given chiefly in order to illustrate the expense of patch-work methods and of maintaining a number of small plants. *It is strongly urged that it should not be adopted.*

## NEGRO SCHOOLS—PLAN 2—NOT RECOMMENDED FOR ADOPTION.

1. *An addition of portable buildings to the High and Industrial School.*—The High and Industrial School and Newtown School should be consolidated and the children sent to the High and Industrial. A number of portable buildings could be erected and made into a single building and enough land bought to square the lot on which the High and Industrial School now stands. The number of classes to be provided for would be as follows:

## Enrollment:

High and industrial—	
High school.....	111
Elementary.....	163
Newtown.....	182
Total.....	456
Twenty per cent increase in 5 years.....	91
Total (in 14 classes).....	547

This makes a school of 4 high-school classes and 11 elementary classes. Under the work-study-play plan it would be necessary to have the following accommodations: One auditorium, 1 gymnasium, 4 classrooms for the high school, and 6 for the elementary classes, or a total of 10; special rooms, 1 chemistry laboratory, 1 physics laboratory, 5 shops—woodworking, forge, painting and plastering, brick masonry (these already exist for evening school students, but

they are scattered over the city in private shops), 1 cooking room for girls, a dressmaking room, 1 nurse training room, 1 mechanical drawing, and 1 music room. This makes 12 units, or a total of 22 units needed. There are available 8 classrooms in the present building and 2 rooms for cooking and sewing in an annex. The room now used in the basement of the present building for a workshop could be used as a storeroom and stockroom.

The eight rooms in the present building can be used for classrooms, and for the present the cooking and sewing rooms can still be used for that purpose if additional equipment is provided. That leaves 12 rooms to be provided. This can be done by erecting modern portable buildings. These buildings can be secured in the form of an auditorium, gymnasium, classrooms, and special rooms, and all of them can be so set up as to form a single building with a corridor down the center, with a principal's office, store, heating plant, showers, and toilets. The cost would be as follows:

One auditorium .....	\$3,500	To make these units into a single building with heating plant....	\$10,000
One gymnasium.....	3,500		45,000
Two classrooms .....	2,000	300 modern single seats and desks to replace the present double desks .....	3,000
Two science laboratories.....	4,000		48,000
Five shops:		Repairs.....	3,000
Woodworking.....	2,000		51,000
Forge.....	4,000	Additional land .....	5,000
Machine shop .....	7,000		
Painting and plastering.....	500	Total.....	56,000
Brick masonry.....	500		
Additional equipment for cooking and sewing.....	2,000		
One mechanical drawing room...	2,000		
One music room.....	2,000		
One nurse training room.....	2,000		
	35,000		

Under the traditional plan it would be necessary to have six additional classrooms at a cost of \$6,000, or a total of \$57,000.

2. *Portable buildings for the West Athens School.*—The enrollment in the West Athens School in 1921 was 400, or 10 classes. Allowing for growth of 2 classes, it would be necessary to provide for 480 pupils, or 12 classes. Under the work-study-play plan it would be necessary to have 6 classrooms, 4 special rooms, an auditorium, and a gymnasium. There are available in the present building 6 rooms. With this it will be necessary to erect 4 portable units, an auditorium, and gymnasium. The cost would be as follows:

One auditorium .....	\$3,500	General repair.....	\$2,000
One gymnasium.....	3,500	To make a single building unit..	4,000
One shop.....	2,000		
One cooking room .....	3,000	Total.....	20,000
One nature study room .....	1,000	Land.....	5,000
One drawing room.....	1,000		
	14,000	Total.....	25,000

Under the traditional plan six additional classrooms would be needed at \$6,000, making a total of \$26,000.

3. *Portable buildings for East Athens School.*—The plans for this school and the cost would be the same as under Plan 1, \$20,000.

The total cost of the building program for the Negro schools under plan 2 would be \$101,000.

**SUMMARY OF COST OF A BUILDING PROGRAM ON THE BASIS OF THE \$323,000 BOND ISSUE.**

*Plan 2.*

**(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.**

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
<b>WHITE SCHOOLS.</b>				
Same as under plan 1:				
Buildings.....	2,080	\$27,000	\$148,460	\$175,460
Land.....				5,000
Total for white schools.....	2,080	27,000	148,460	180,460
<b>NEGRO SCHOOLS.</b>				
14 portables for the High and Industrial and Newtown Schools.....	560	15,000	246,000	51,000
560 pupils.				
14 classes.				
1 portable for auditorium.....	\$3,500			
1 portable for gymnasium.....	3,500			
2 portables for classrooms.....	2,000			
2 portables for science rooms.....	4,000			
5 portables for shops.....	14,000			
1 portable for mechanical drawing.....	2,000			
1 portable nurse-training room.....	2,000			
1 music room.....	2,000			
Additional equipment for cooking room.....	2,000			
Cost of making these units into single plant with heating plant.....	10,000			
300 single seats and desks to replace double desks.....	3,000			
Repairs.....	3,000			
Portables for West Athens.....	480	20,000		20,000
480 pupils.				
12 classes.				
1 portable auditorium.....	3,500			
1 portable gymnasium.....	3,500			
1 portable shop.....	2,000			
1 portable cooking room.....	3,000			
1 portable nature-study room.....	1,000			
1 portable drawing-room.....	1,000			
Cost of making these units into a single plant with heating plant.....	4,000			
Repairs.....	2,000			
6 portables for East Athens, same as under plan 1.....	480	20,000		20,000
Total.....	1,520	91,000		91,000
Land.....				10,000
Total for Negro schools.....	1,520	91,000		101,000
Total for buildings for white and Negro schools.....	3,600	266,460		266,460
Land.....				15,000
Grand total for white and Negro schools.....	3,600	266,460		281,460

<sup>1</sup> This is in addition to the equipment included in the cost of the portable buildings.

<sup>2</sup> The cost of equipment for each room and activity is included in this building cost.

## Plan 2—Continued.

## (b) TRADITIONAL PLAN—CAPACITY AND COSTS.

Building.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
<b>WHITE SCHOOLS.</b>				
Same as under plan 1:				
Buildings.....	2,080	\$32,000	\$265,466	\$296,460
Land.....				20,000
Total for white schools.....	2,080	32,000	265,466	316,460
<b>NEGRO SCHOOLS.</b>				
20 portables for High and Industrial and Newtown Schools.....	560	5,000	52,000	57,000
(Same capacity as under work-study-play plan, but cost of 6 additional classrooms required under traditional plan.)				
12 portables for West Athens.....	480		26,000	26,000
(Same capacity as under work-study-play plan, but cost of 6 additional classrooms required under traditional plan.)				
12 portables for East Athens.....	480		26,000	26,000
(Same capacity and costs as under work-study-play plan, but cost of 6 additional classrooms required under traditional plan.)				
Total.....	1,520		109,000	109,000
Land.....				20,000
Total for Negro schools.....	1,520		109,000	129,000
Grand total for white and Negro schools.....	3,600		406,466	445,460

**ATHENS BEHIND OTHER CITIES IN SCHOOL EXPENDITURES.**

The preceding building program shows what can be accomplished with the \$323,000 bond issue available. But Athens should not be satisfied with this amount of money for her schools. It represents only a beginning of what she should spend in order to bring her school plant up to date.

Athens probably does not realize that, as has already been pointed out, the city has the wealth to make her public school plant one of the most modern in the country. Furthermore, the average citizen probably does not know that up to the present time Athens has spent far less on her public schools than other cities of the same population group. And yet the following facts prove this to be the case:

*Athens is fortieth from the bottom of a list of 327 cities in its tax rate for schools.*—The tax rate for all school purposes for Athens for 1917-18 was 5 mills. But this was on the basis of a 67 per cent property assessment. On the basis of a 100 per cent valuation of property the tax rate for Athens for that year was 3.35 mills.<sup>19</sup> (See Chart IV.)

The following table and chart show that out of 327 cities with a population of 10,000 to 30,000, Athens stood fortieth from the bottom of the list in its tax rate for schools. Two hundred and eighty-

seven cities had a higher tax rate than Athens. Only 39 had a lower rate.<sup>19</sup>

*Athens stands eleventh from the bottom of the list of 45 cities in its per capita expenditure for schools.*—Furthermore, when Athens is compared with other cities of the same population group, with respect to its per capita expenditure for current school expenses, it is found that its per capita expenditure for public schools for 1917-18 was \$32.46, whereas, the average for the 25 cities cited in the accom-

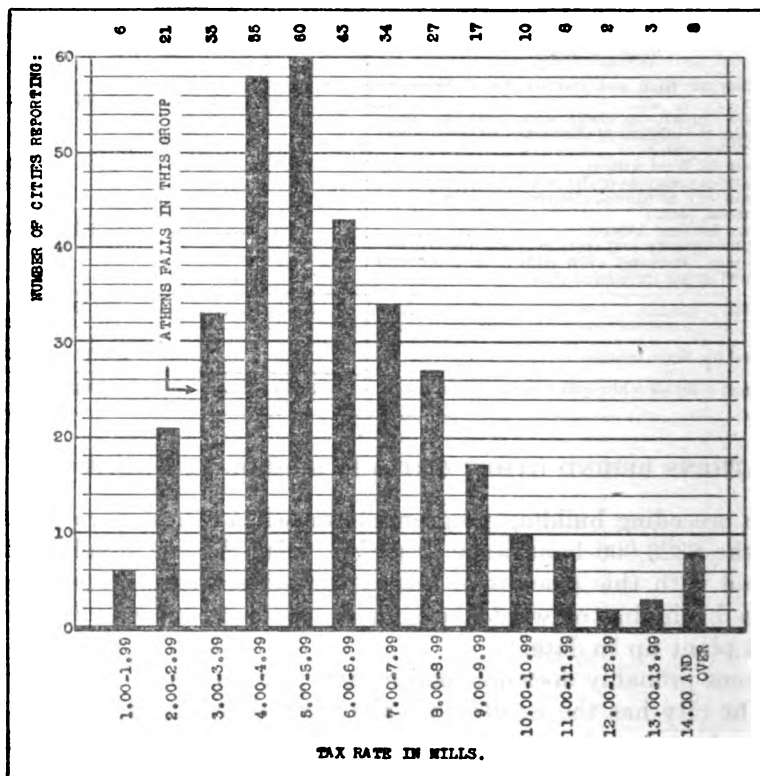


CHART IV.—Athens stands 40th from the bottom in a list of 327 cities in its tax rate for schools.

panying chart was \$49.93. In other words, it stood eleventh from the bottom of the list of 45 cities.<sup>20</sup> (See Chart V.)

*Athens stands twenty-first from the bottom of the list of 340 cities in the amount of its school property.*—The value of the school property of the public schools of Athens tells the story of its poverty in school buildings and indicates with startling accuracy how far behind other cities Athens has fallen in its provisions for housing its children.

<sup>19</sup> See *Statistics of Public School Systems*, H. R. Bonner, U. S. Bu. Educ. Bul. 1920, No. 24, p. 467.

<sup>20</sup> See *Statistics of City School Systems*, H. R. Bonner, U. S. Bu. Educ. Bul. 1920, No. 24, pp. 146, 428, and 324.



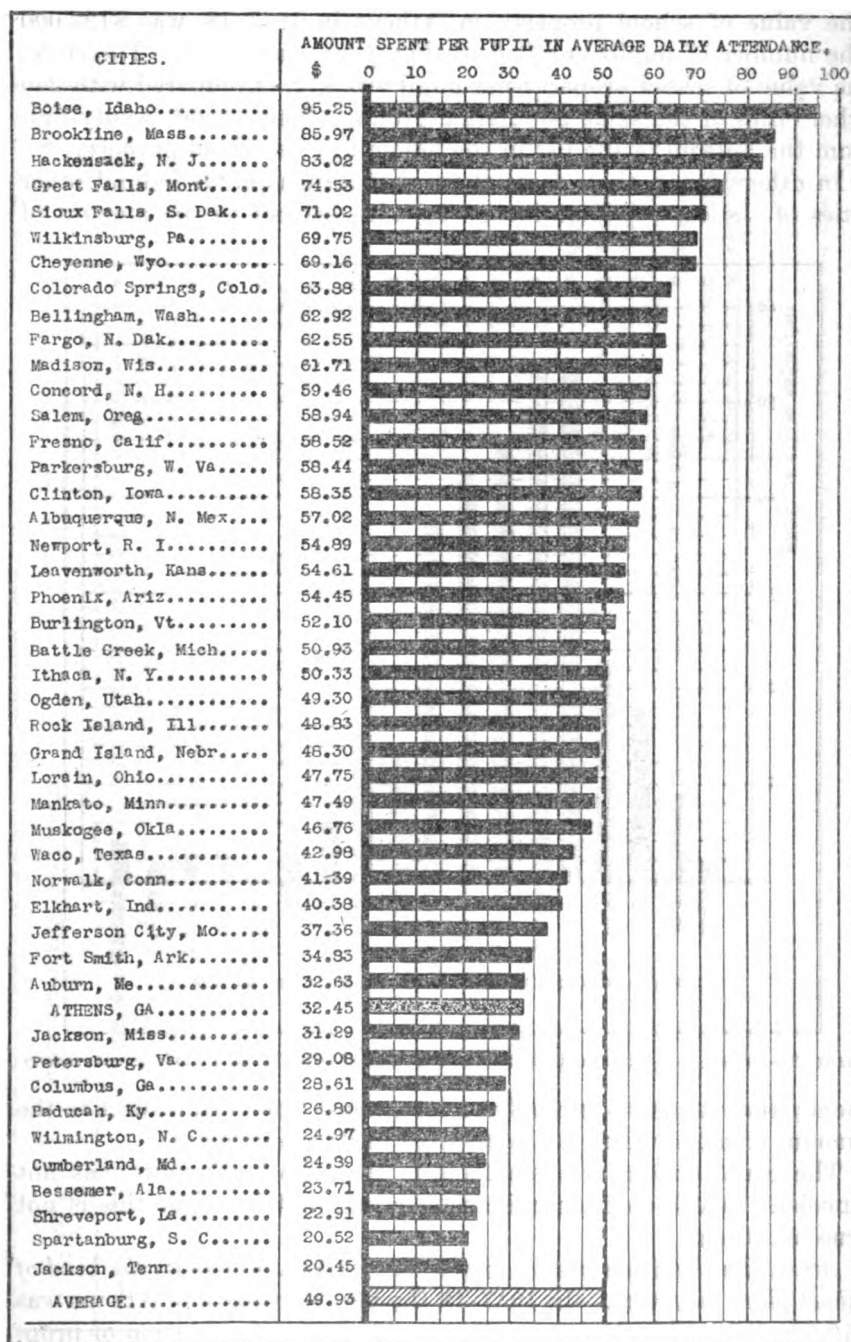


CHART V.—Athens stands 11th from the bottom in a list of 45 cities in its per capita expenditure for public schools.

The value of school property in Athens in 1917-18 was \$123,000. The number of pupils enrolled in that year was 2,945. Therefore, the value of school property per pupil was \$42. Compared with 340 other cities of the same population group, Athens stood twenty-first from the bottom of the list in the amount of its school property.<sup>21</sup>

In other words, these facts show that Athens is far behind other cities of the same population group with respect to the amount of

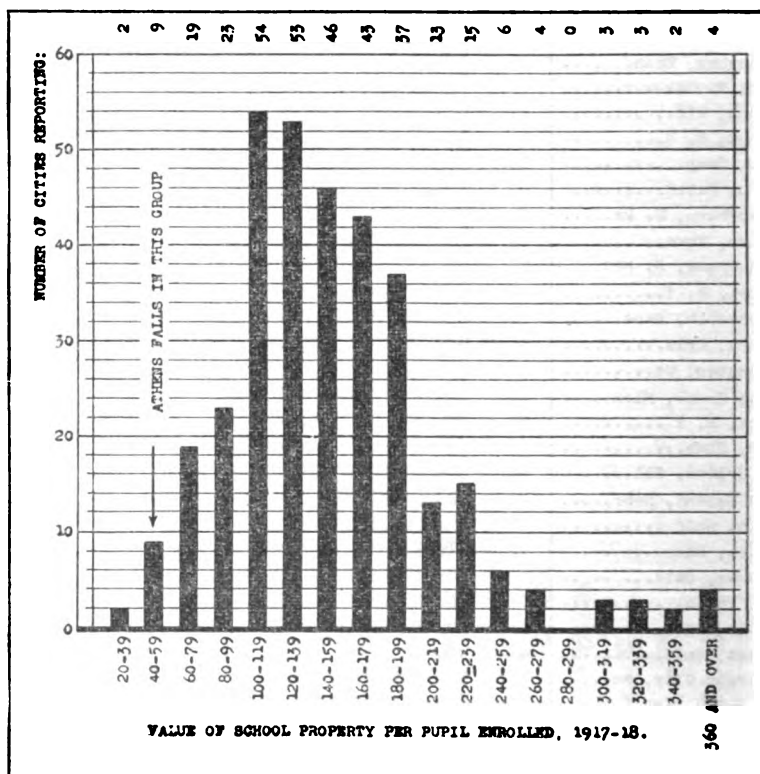


CHART VI.—Athens stands 21st from the bottom in a list of 240 cities in the amount of its school property.

money that it spends annually on its schools, and with respect to the amount of money that it has invested in its school plant.

The usual answer to such facts is that the community has not sufficient wealth to finance its schools adequately. But this is not true of Athens.

*Athens has sufficient wealth to give the children of the city the kind of school plant they need.*—In 1917-18 the taxable wealth of Athens was \$10,000,000. This, however, was on 67 per cent valuation of property. The true value of the taxable wealth, on a 100 per cent valua-

<sup>21</sup> See Statistics of City School Systems, H. R. Bonner, U. S. Bu. Educ. Bul. 1920, No. 24, pp. 467, 324, and 123. See about quoting individual cities, p. 467.

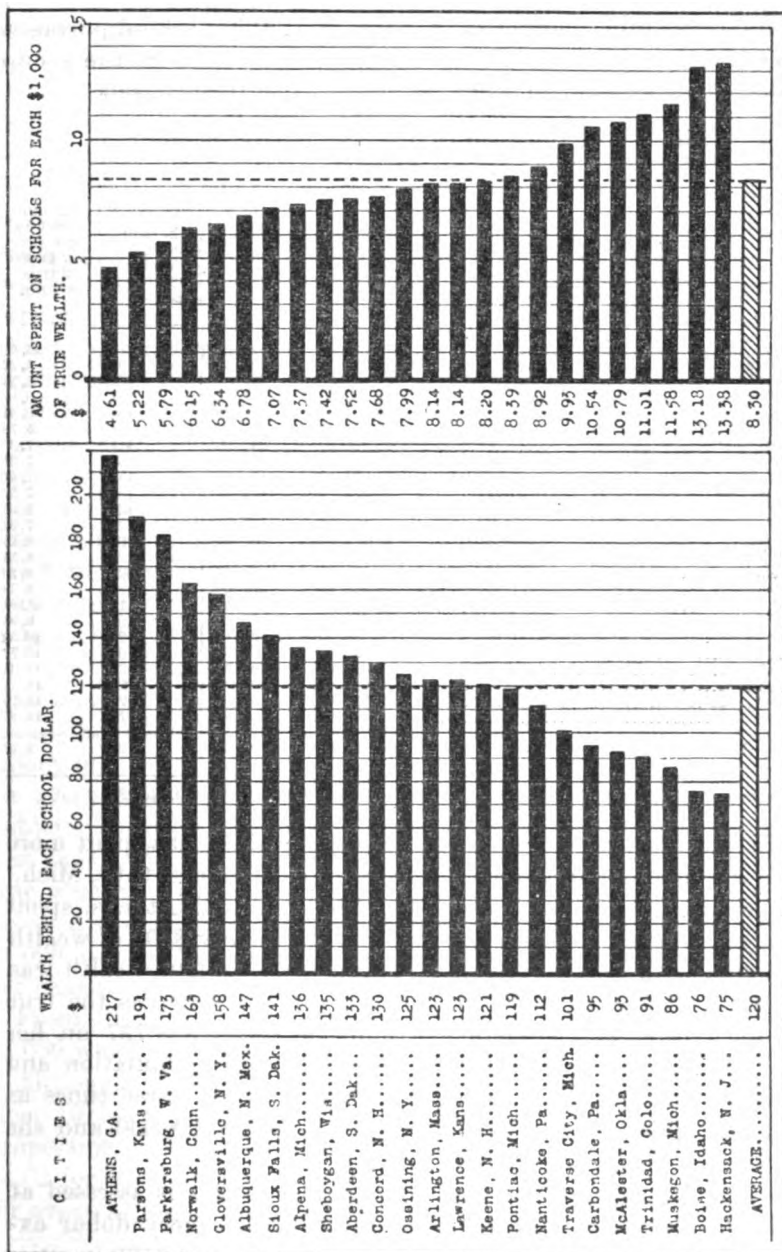


CHART VII.—Athens has more wealth behind her school dollar and spends less money for every \$1,000 of true wealth than any other city of this group of 23 cities.

tion, was \$14,925,000. Compared with 23 other cities whose wealth is also estimated on a 100 per cent valuation, Athens stands highest in the amount of wealth behind the school dollar.<sup>2</sup> (See Table 3.)

The following table shows that Athens spent \$1 for school purposes for every \$217 it possessed, whereas the average city in the group expended \$1 on schools for every \$120 of wealth it possessed.

TABLE 3.—*True wealth behind every school dollar in 24 cities.<sup>1</sup>*

Cities.	True value of taxable wealth.	Expenditures for public schools.	Number of dollars behind every dollar spent on schools.	Amount spent on schools per \$1,000 of true wealth.
Athens, Ga.....	\$14,925,000	\$68,797	\$217	\$4.61
Parsons, Kans.....	13,310,000	69,544	191	5.22
Parkersburg, W. Va.....	34,869,000	201,797	173	5.79
Norwalk, Conn.....	25,126,000	154,426	163	6.15
Gloversville, N. Y.....	19,826,000	125,697	158	6.34
Albuquerque, N. Mex.....	15,746,000	106,714	147	6.78
Sioux Falls, S. Dak.....	28,368,000	200,717	141	7.07
Alpena, Mich.....	7,845,000	57,847	136	7.37
Sheboygan, Wis.....	24,669,000	183,047	135	7.42
Aberdeen, S. Dak.....	16,222,000	122,005	133	7.52
Concord, N. H.....	18,707,000	143,734	130	7.66
Ossining, N. Y.....	10,714,000	85,600	125	7.99
Arlington, Mass.....	19,162,000	155,869	123	8.14
Lawrence, Kans.....	13,854,000	112,793	123	8.14
Keene, N. H.....	11,000,000	90,190	121	8.29
Pontiac, Mich.....	26,312,000	212,385	119	8.39
Nanticoke, Pa.....	14,454,000	128,908	112	8.92
Traverse City, Mich.....	7,756,000	77,013	101	9.93
Carbondale, Pa.....	9,953,000	104,898	95	10.54
McAlester, Okla.....	6,142,000	66,288	93	10.79
Trinidad, Colo.....	9,416,000	103,709	91	11.01
Muskegon, Mich.....	25,045,000	290,072	85	11.54
Boise, Idaho.....	19,000,000	250,393	75	13.19
Hackensack, N. J.....	16,038,000	214,660	75	13.38
Twenty-three cities exclusive of Athens.....	392,524,000	3,258,296	120	8.39

<sup>1</sup> See Statistics of City School Systems, H. R. Bonner, U. S. Bu. Educ. Bul., 1920, No. 24.

Furthermore, cities with one-half the wealth of Athens spent more upon their schools than Athens. For example, Traverse City, Mich., with a smaller population and one-half the wealth of Athens, spent more on its schools than Athens; i. e., \$1 out of every \$101 of wealth as compared with \$217 in Athens. Traverse City's true wealth was \$7,756,000, and she spent \$77,013 on her schools; whereas the true wealth of Athens was \$14,925,000, and she spent \$68,797 on her schools. Hackensack, N. J., with about the same population and with slightly larger wealth than Athens spent about three times as much on its schools. Her taxable wealth was \$16,038,000 and she spent \$214,660 on her schools.

Even if it were contended that property in Athens is assessed at 100 per cent valuation, the city had \$145 behind every dollar expended for the schools, as compared with an average of \$120 in cities

<sup>2</sup> See Statistics of City School Systems, H. R. Bonner, U. S. Bu. Educ. Bul., 1920, No. 24, pp. 427-430; pp. 467-477.

where property is assessed at 100 per cent valuation. In fact, compared with these other 23 cities listed, where the property valuation is on a 100 per cent basis, it is found that only 5 cities out of the 23 had more money behind the school dollar.

*Athens spent a smaller proportion of her wealth upon her schools in 1920 than in 1917-18.*—It might be thought that these figures for 1917-18 do not represent conditions at the present time, and that in 1920 Athens was spending a greater proportion of her wealth upon her schools. On the contrary in 1920 Athens spent a smaller proportion of her wealth upon her schools than in 1917-18. For example, in 1920 the taxable wealth of Athens, on a 100 per cent property valuation, was \$22,500,000.<sup>23</sup> This does not include the territory annexed to the city in 1921. The expenditures for public schools for that year were \$90,500.<sup>24</sup> This means that in 1920 the number of dollars behind every school dollar had increased from \$217 in 1917-18 to \$248.

Even on the basis of the existing 60 per cent valuation of property, the taxable wealth of Athens in 1920 was \$13,500,000. The expenditures for schools were \$90,500. Therefore, the number of dollars behind the school dollar, even on a 60 per cent valuation of property, was \$167 as compared with \$145 in 1917-18.

*For every \$1,000 of true wealth Athens spent about one-half as much on her schools as the average city in a list of 23 cities of the same population group.*—The following chart shows that not only did Athens have more wealth behind the school dollar than any other city in the group, but also that she spent for every \$1,000 of true wealth less money on her schools than any other city in the group. In 1917-18, for every \$1,000 of true wealth, the average amount expended for public schools by 23 cities of the same population group as Athens was \$8.30, whereas Athens expended only \$4.61 for every \$1,000 of true wealth in the community.<sup>25</sup> Even on the basis of 67 per cent assessed valuation of property, Athens spent only \$6.87 out of every \$1,000, or about three-fourths of the average of cities taxed on a 100 per cent valuation.

From 1917-18 to 1920 Athens actually decreased the amount per \$1,000 which she spent on schools.

Although the true wealth of Athens has increased by \$7,575,000 since 1917-18, yet Athens in 1920 spent less money on her schools in proportion to her true taxable wealth than she did in 1917-18; i. e., \$4.02 for every \$1,000 in 1920, as contrasted with \$4.61 in 1917-18 for every \$1,000 of true wealth.

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<sup>23</sup> See Appendix V, Taxable wealth of Athens, Ga., 1920.

<sup>24</sup> See Appendix VI, Expenditures for all city departments, Athens, Ga., 1920.

<sup>25</sup> See Chart VII. True Wealth Behind Every School Dollar.

## SUMMARY.

Athens was the pioneer in bringing higher education to the youth of Georgia. Will it lead in reconstructing its public school plant so as to bring modern educational advantages to the children of the public schools?

This question states the real significance of a school-building program for Athens at the present time.

*Up to the present time Athens has spent far less on her public schools than other cities of the same size.*

Athens is fortieth from the bottom of a list of 327 cities of the same population group in its tax rate for schools.

Athens stands tenth from the bottom of a list of 25 cities of the same population group in its per capita expenditure for schools.

Athens stands twenty-first from the bottom of a list of 340 cities of the same population group in the amount of its school property.

*Athens' school plant is in deplorable condition.*

Athens is to be congratulated upon the fine, progressive spirit of its superintendent, board of education, and teaching force. They are doing their best to give progressive education to the children, but they are trying to do it in the face of almost insuperable obstacles in the way of inadequate buildings and equipment.

There has been no new elementary school building for 12 years.

The schools are so badly congested that there are 439 more children than there are school seats.

With the exception of two poorly equipped cooking rooms, there are practically no modern facilities in the elementary schools. There is not a single auditorium or gymnasium. There are no shops, no science laboratories, no drawing rooms, no music rooms, no libraries. There are only two principals' offices in all the eight elementary schools, and no teachers' rest rooms. In nearly every school the playground space and equipment are entirely insufficient.

*A building program costing \$318,091 is recommended as the minimum required to meet the most pressing needs of the public schools at the present time.*

It is further recommended that in order to give not only adequate classroom accommodations to the children, but also a flexible program of work, study, and play in shops, science rooms, drawing rooms, music rooms, auditoriums, and playgrounds, the schools be organized on the work-study-play or balanced load type of organization. Under this plan it will be possible to give these modern facilities to children for \$318,091, whereas under the traditional plan it would cost \$570,091.

This expenditure of \$318,091 is, however, only a beginning of what the city ought to do in order to develop a modern school plant.

As a matter of fact, if Athens is to relieve existing congestion, provide for the growth of at least 10 years, and consolidate her

present small plants into a few modern up-to-date school buildings with adequate playgrounds, a *building program costing \$1,710,120 should be carried out.*

*Athens has sufficient wealth to carry out such a program if it is extended over a number of years.*

Athens' taxable wealth at present is given at \$14,900,000. But at the present time her property is assessed at 60 per cent valuation. If it were assessed at 100 per cent valuation, her true taxable wealth would be \$24,833,333. Therefore, the amount of money available for bonds at 7 per cent of the taxable wealth would be \$1,738,333. Deducting the \$720,000 for outstanding bonds, there would be left \$1,018,333 available for school bonds, if property were assessed at 100 per cent valuation.

Compared with 23 other cities of the same size, Athens stands highest in the amount of wealth behind the school dollar. Yet for every \$1,000 of school wealth Athens spent about one-half as much on her public schools as the average city in a list of 23 cities of the same size.

Furthermore, although the true wealth of Athens increased by \$7,575,000 since 1918, yet Athens in 1920 spent less money on her schools in proportion to her taxable wealth than she did in 1917-18.

*Athens needs to enter upon a statesmanlike policy of reconstructing her whole school plant.*

She has the wealth to carry out such policy. Furthermore, the city has such a real and vital interest in education that there is no question but that, if once the facts regarding the public schools are realized, the people of the city will see to it that their children receive the modern educational advantages which the children of other cities are receiving.

The bond issue for \$318,091 is not merely to give buildings to children. It is to give children the chance to grow in health and strength and mental alertness. It is to give them the chance to live.





## APPENDIX I.

### THE WORK-STUDY-PLAY PLAN IN SOME CITIES.

[From a Report of the Commerce Club of Toledo, Ohio.]

City and State.	Estimated population in 1918.	Number of schools operating under plan.	Attitude of superintendent to plan.	Special remarks.
Winnetka, Ill.....	5,000	All, on modified form.	Favorable.	Effects saving in capital investment, enriches school program, and makes possible the employment of competent, trained departmental teachers.
Detroit, Mich.....	850,000	16 this year, 50 next year, modified form.	do.....	Adjusts plans to facilities of particular buildings; teachers enthusiastic about plan; increases seating capacity of building from 16 to 40 per cent.
Kalamazoo, Mich.....	50,000	All, on modified form.	do.....	Used in third to sixth grades, inclusive, junior and senior high schools, all on departmentalized plan.
Newark, N. J.....	450,000	9.....	do.....	Has decided advantages over traditional plan which more than offset disadvantages. Teachers having had 1 year of successful experience in these schools receive a bonus of 5 per cent.
New Brunswick, N. J.....	34,000	1, in modified form, platoon plan.	do.....	Accommodates 16 sections of pupils to space usually assigned to 13 groups, or increases capacity 23 per cent.
Passaic, N. J.....	70,000	2.....	do.....	Average per capita annual cost reduced to 5-hour basis for all schools is \$42.51 for traditional schools as compared with \$32.73 for work-study-play plan schools.
Troy, N. Y.....	80,000	1, in modified form.	do.....	Satisfied with plan; children get greater advantages than with old type of school.
New Castle, Pa.....	36,000	4.....	do.....	Considered a marked improvement over traditional plan; success depends upon the securing of teachers properly trained to do the special teaching which this type of school demands.
Pittsburgh, Pa.....	504,000	6.....	do.....	Will extend the use of the plan.
Sewickley, Pa.....	6,000	All, for 5 years.....	do.....	Has decided advantages over traditional plan.
Swarthmore, Pa.....	3,000	All, for 8 years: modified form.	do.....	Very complete school equipment and program; per pupil cost \$97.87.

## APPENDIX II.

### SCHEDULE SHOWING CAPACITY OF COMPLETE SCHOOL, PER CLASS PERIOD, FOR SCHOOL OF 2,000 PUPILS.

Academic work, 25 classes at 40 pupils each.....	1,000
<div style="display: flex; justify-content: space-between;"> <div> Grades 1-4—  Reading.  Writing.  Spelling.  Mathematics.  Music. </div> <div> Grades 4-9—  Geography.  History.  English, including foreign language.  Civics.  Mathematics. </div> </div>	
Special work, classes at 20 to 40 each.....	480
2 in elementary science (primary and intermediate) at 40..... 2 in drawing and handwork (1 primary, 1 upper and intermediate) at 40..... 2 in home economics (upper and intermediate) at 20-40..... 1 in arts and crafts (upper and intermediate) at 40..... 2 in shop for boys (upper and intermediate) at 20-40..... 1 in mechanical drawing (upper and intermediate) at 40..... 2 in general science (upper and intermediate) at 40..... 1 in music..... 1 in expression } third floor (upper and intermediate).....	80 80 80 80 80 80 80 80
Gymnasiums, 2 classes at 80 each.....	160
Playgrounds, 2 classes at 40 each.....	80
Auditorium, 7 classes.....	280
	<b>520</b>

#### RECAPITULATION.

Pupils in classrooms.....	1,000
In special work.....	480
In gymnasiums.....	160
In playgrounds.....	80
In auditorium.....	280
	<b>1,000</b>
Total.....	<b>2,000</b>

### DUPLICATE SCHOOL PROGRAM, TYPE A.<sup>1</sup>

Key to classes.		Rooms.	Names of teachers.	Eight 60-minute class periods.							
Class No.	Class Gr.			I	II	III	IV	V	VI	VII	VIII
1	1B	101	Smith.....		1	2		2		1	2
2	1B	102	Jones.....	3	4		3	4	3	4	
3	1A	102	Harter.....	5		6	5		6	5	6
4	1A	103	Ames.....	7	8	7		8	7		8
5	2B	104	Jacobs.....		9	10	9	10		9	10
6	2B	105	Snyder.....	11	12		11	12	11	12	
7	2A	105	Brooks.....	13		14	13		14	13	
8	2A	106	Aherne.....	15	16	15		16	15		16
9	3B	107	Mosher.....		17	18	17	18		17	18
10	3B	108	Metz.....	23	20		21	24	22	19	
11	3A	108	Glover.....	21		22	19		23	20	24
12	3A	109	Gorry.....	19	24	23		20	21		22
13	4B	110	Nature—Fox.....		11	5	7	6		3	4
14	4B	111	Science—Cear.....	1	23		15	14	2	8	
15	4A	111	Drawing—Glen.....	12		20	23		9	10	13
16	4A	112	Hall—Dorr.....	17	21	24		22	16		19
17	5A 5B	113	Shop—Book.....	20	22	19			24	18	21
18	5A 5B	114	Shop—Dale.....								
19	6B	Auditorium	Hall—Dorr.....	2, 6	10, 14	9, 12			17, 19	21, 23	1, 5
20	6A		Johnson.....	4, 8	13, 15	11, 16			18, 20	22, 24	3, 7
21	7B	Gym. playground	Bruns.....	9, 16	2, 6	1, 8			1, 8	2, 11	9, 15
22	7A		Phillips.....	10, 18	3, 7	3, 13			4, 10	6, 14	11, 17
23	8B		Shafer.....	14, 22	5, 18	4, 17			5, 12	7, 15	12, 20
24	8A		Gale.....	24	19	21			13	16	23

<sup>1</sup> The four types of programs and the explanations here given are reproduced from a leaflet published by William Wirt, superintendent of schools, Gary, Ind., 1918.

The school classes are numbered from 1 to 24, as given under "Key to classes." The 12 odd-numbered classes are in a group alternating with the 12 even-numbered classes in the use of classrooms and special facilities. No. 1 alternates with No. 2, etc.

Since each group of classes contains approximately all school grades, they are duplicate groups of classes. This is the reason for using the name "Duplicate school."

If all children in a family enter odd-numbered classes, they will have the same luncheon hour at Period V. If they enter even-numbered classes, they will have luncheon at Period IV.

The academic teachers use classrooms 101 to 109. Four academic teachers use three rooms and accommodate eight classes three periods each. Each academic teacher teaches six periods divided equally between two classes. If it is desired to departmentalize the academic work, each teacher in any group of three can be given three classes two periods each or six classes one period each, as shown for teachers Metz, Glover, and Gorry.

Teachers Smith and Ames have all of their work in rooms 101 and 103, respectively. Teacher Jones has two class periods in room 101 and four class periods in room 102. Teacher Harter has two class periods in room 103 and four class periods in room 102.

Hall and Dorr alternate in auditorium and classroom in music and expression. Gale takes children from play periods for the preparation of auditorium programs.

Pupils may be excused from play periods for library, private music lessons, week-day church school, home work, etc.

### DUPLICATE SCHOOL PROGRAM, TYPE B.

Key to classes.		Rooms.	Teachers.	Seven 60-minute class periods.						
Class No.	Class Gr.			I	II	III	IV	V	VI	VII
1	1B	101	Smith.....	1	1	2	2	1	2	
2	1B	102	Jones.....	3		4	4	3	3	4
3	1B	103	Harter.....		5	6	6	5	5	6
4	1A	104	Ames.....	7	7	8	8	7		8
5	1A	105	Jacobs.....	13	10		10	10	13	13
6	2B	106	Snyder.....	14	12	12		12	14	14
7	2B		Brooks.....	9	9	11	11		11	9
8	2A	107	Aherne.....	15	15	16	16	15	16	
9	2A	108	Mosher.....	19		18	18	19	19	18
10	3B	109	Metz.....		21	20	20	21	21	20
11	3B	110	Glover.....	23	23	22	22	23		22
12	3A	111	Gorry.....	27	24		24	24	27	27
13	3A	112	Pearcy.....	28	26	26		26	28	28
14	4B		Flynn.....	17	17	25	25		25	17
15	4B	113	Studio—Fox.....	5	3	1	13	2		11
16	4A	114	Science—Cear.....	10		15	14	4	6	12
17	4A	115	Studio—Glen.....	21	19	17		17	8	16
18	5B	116	Shop—Dale.....	24	20	19	21	18	22	
19	5B	117	Shop—Book.....							
20	5A	118	Shop—Gore.....	25	27		28	20	18	23
21	5A	119	Shop—Dorr.....							
22	6B	120	Science—Hall.....	26	28	23	27		26	24
23	6B		App.—Cook.....	22	22	21	15	9	7	25
24	6A			11, 16	2, 6	9, 13	1, 5	22, 27	17, 23	15, 21
25	7B		2½ teachers.....	12, 18	4, 8	10, 14	3, 7	25, 28	20, 24	19, 26
26	7A		Gym.....	2, 8	11, 16	3, 24	9, 19	6, 13	1, 10	1, 7
27	8B		3½ teachers.....	4, 20	13, 18	5, 27	12, 23	8, 14	4, 12	2, 3
28	8A	play-ground		6, 22	14, 25	7, 28	17, 26	11, 16	5, 15	5, 10

All children go home for luncheon at the same hour in programs B and C.

Teachers Brooks and Flynn have each of their six class periods in a different room. This excessive traveling can, in part, be divided with the other teachers, but not so successfully as in program A. The upper classes may have their work departmentalized as shown in program A.

Since the auditorium and gymnasiums are in use seven hours in place of six, as in program A, relatively fewer classes are accommodated at any hour in these facilities. The relative amount of space for gymnasiums and auditorium is decreased and a proportionate amount of space is added to classrooms and special facilities.

In all duplicate school programs the increase in capacity depends upon the relative amount of gymnasium, auditorium, and special classroom space that is used simultaneously with the regular classrooms, and the total and relative amount of time that each of these school facilities is in use.

### DUPLICATE SCHOOL PROGRAM, TYPE C.

Key to classes.		Rooms.	Teachers.	Eight 45-minute class periods with 60-minute noon recess.							
Class No.	Class Gr.			9.00	9.45	10.30	11.15	1.00	1.45	2.30	3.15
1	1B	101	Smith.....	1	1	2	2	1	1	2	2
2	1B	102	Jones.....	3	3	4	4	3	3	4	4
3	1A	103	Harter.....	5	5	6	6	5	5	6	6
4	1A	104	Ames.....	7	7	8	8	7	7	8	8
5	2B	105	Jacobs.....	9	9	10	10	9	9	10	10
6	2B	106	Snyder.....	11	11	12	12	11	11	12	12
7	2A	107	Brooks.....	13	13	14	14	13	13	14	14
8	2A	108	Aherns.....	15	15	16	16	15	15	16	16
9	3B	109	Mosher.....	17	17	18	18	17	17	18	18
10	3B	110	Metz.....	19	19	20	20	19	19	20	20
11	3A	111	Glover.....	21	21	22	22	21	21	22	22
12	3A	112	Gorrey.....	23	23	24	24	23	23	24	24
13	4B	113	Studio—Glenn.....	8	2	7	1	10	4	9	3
14	4B	114	Shop—Fox.....	10	4	9	3	12	6	11	5
15	4A	115	Science—Cear.....	12	6	11	5	8	2	7	1
16	4A	116	Studio—Dale.....	20	14	19	13	22	16	21	15
17	5A 5B	117	Shop—Book.....	22	16	21	15	24	18	23	17
18	5A 5B	118	Shop—Gore.....								
19	6B	119	Science—Hall.....	24	18	23	17	20	14	19	13
20	6A	Gym.	Bruns.....	2, 14	8, 20	1, 13	7, 19	2, 14	8, 20	1, 13	7, 19
21	7B	play-	Phillips.....	4, 16	10, 22	3, 15	9, 21	4, 16	10, 22	3, 15	9, 21
22	7A	ground..	Shafer.....	6, 18	12, 24	5, 17	11, 23	6, 18	12, 24	5, 17	11, 23
23	8B										
24	8A										

The auditorium is omitted, but, of course, can be substituted for part of the special work. If the school has an auditorium and does not care to use it for regular auditorium exercises, it might be used as a music studio.

A 5-hour day for teachers and students can be arranged by shortening the afternoon periods. The special work in the morning may then be divided into six 30-minute periods, if uniform periods are desired.

In all duplicate programs additional academic work can be substituted for part of the physical training and special work. Some other type of work can be substituted for "Application." The auditorium may be omitted in any program by substituting additional academic or special workroom units. The day may be shortened by reducing the length of periods or changing the number of periods. Primary children may be given more play than upper grades. Academic or special work for two continuous periods may be broken up by changing classes every hour. This will also give academic work during Period II to the classes that would otherwise not get academic work until Period III.

Pupils may be given longer hours than teachers without employing extra teachers because a less number of teachers than classes are in the auditorium and playgrounds.

The writer has worked with more than 50 different types of duplicate school programs. Almost any kind of school can be secured by changing the length, number, or grouping of the periods, the type and the sequence of work, and the school hours for pupils or teachers.

## DUPLICATE SCHOOL PROGRAM, TYPE D.

Key to classes.		Rooms.	Teachers.	Ten 45-minute class periods with a noon recess.											
Class No.	Class Gr.			I	II	III	IV	V	VI	VII	VIII	IX	X		
1	1B	101	Smith.....	1	1	2		2	1	1		2	2		
2	1B	102	Jones.....	3	3		4	4	3		3	4	4		
3	1A	103	Harter.....	5	5	6	6	6		5	5	6			
4	1A	104	Ames.....	7		7	8	8	7	7	8		8		
5	2B		Jacobs.....		7	4	2		5	3	1	8			
6	2B	105	Snyder.....	9	9	10		10	9	9		10	10		
7	2A	106	Brooks.....	11	11		12	12	112		11	12	12		
8	2A	107	Aherne.....	13	13	14	14	14		13	13	14			
9	3B	108	Mosher.....	15		6	16	15	16	15	15		16		
10	3B		Metz.....		15	12	10		3	11	9	16	14		
11	3A	109	Glover.....	17	7	18		18	17	17		18	18		
12	3A	110	Gorry.....	19	9		20	20	19		19	20	20		
13	4B	111	Pearcy.....	21	21	22	22	22		21	21	22			
14	4B	112	Flynn.....	23		24	23	24	23	24	23		24		
15	4A		Cook.....		23	20	18		21		20	21	22		
16	4A			2	14	8	19			20	7	13	3		
17	5A 5B	Auditorium.	{ Dale.....	4	16	9	21			22	10	15	5		
18	5A 5B		{ Book.....	6	18	11	24			23	12	17			
19	6B	Gym.	{ Johnson.....	2, 12	2, 4	1, 3	1, 3			2, 4	2, 4	1, 3	7, 11		
20	6A	and play-grounds.	{ Bruns.....	14, 16	6, 8	19, 21	5, 9			6, 10	20, 22	5, 7	13, 15		
21	7B		{ Phillips.....	18	10	23	11			12	24	9	17		
22	7A	113	Studio-Fox	10	12	5	7			8	6	11	9		
23	8B	114	Studio-Oar.	20	20	13	13			14	14	19	19		
24	8A	115	Science-Door	22	22	15	15			16	16	21	21		
		116	Shop-Hall..												
		117	Shop-Gate..	24	24	17	17			18	18	23	23		

Teachers Jacobs, Metz, and Cook should teach drawing, music, or some special subject that can be taught in regular classrooms. If desired, the continuous academic periods may be broken up as shown for teacher Flynn with classes Nos. 23 and 24.

The following table gives comparative data concerning the four program types.

Program types.	Hours in use.				Hours classwork.		Teachers per class.	Room units per class.
	Class-rooms.	Gyms.	Aud.	Special rooms.	Teachers.	Pupils.		
A.....	8	6	6	6, 8	6	7	1.00	0.563
B.....	7	7	7	7	6	7	1.03	.714
C.....	6	6	6	6	6	6	.91	.791
D.....	7½	6	6	6	6	6½	1.04	.708

"Room units per class" does not include auditorium and gymnasium space.

## APPENDIX III.

### DESCRIPTION OF TYPE BUILDING OF WHICH A DIAGRAM IS SUBMITTED.

#### THE CLASSROOMS.<sup>1</sup>

The interior arrangement of the building calls first of all for classrooms sufficient in number to house 50 per cent of the pupils at any one time.

Usually the subjects of reading, writing, arithmetic, English, and spelling are taught in these classrooms, and normally at least half of the children's school day is devoted to these subjects. If the school day is six hours in length, about three hours daily will be spent in classrooms. Of course the length of the day can vary as much as is desirable. The above merely states what the usual arrangement and balance is, where the plan is used successfully.

Geography, history, and civics are sometimes classified as regular classroom subjects, but generally in the complete schools these are considered special or laboratory subjects. Although only half the children's time is spent in the classrooms, the other subjects supplement in various ways the drill subjects in the classrooms; so in reality children may spend more than half the time in the fundamental subjects. Comparing this time with the time in the traditional school, we find that no time is taken from the fundamental subjects by changing the type of organization and plan of operation from a traditional one to one which gives adequate recognition to all vital considerations in education, viz, health, the fundamental operations, manual skill, wholesome recreation, and ethical character.

On the other hand, if school authorities wish to classify as classroom subjects geography and history, as well as reading, writing, and arithmetic, it is possible to so classify them in the complete work-study-play school, and give the same amount of time to them—210 minutes—as in the traditional school.

#### GYMNASIUMS.

Two gymnasiums are provided for in the plan, one for girls and one for boys. These include dressing and shower rooms, as well as offices for the instructors, physician, and nurse, and space for clinics. Located at the rear of the building, they open directly to the playground. A roof playground could be added, to be used for play classes during the inclement weather as well as for open-air classes. A total of from 6 to 8 classes could be handled during each period by the gymnasium and playgrounds without congestion.

#### SHOPS.

The workshops for boys include woodwork, staining and finishing, mechanical drawing, and may include printing, metal work, or other shop activities. The activities for girls include home economics and the arts and crafts, although, of course, girls as well as boys may elect to do the work in mechanical drawing, printing, metal work, and other shop activities. Four classes (160 pupils) can be accommodated in these prevocational quarters. This approximates about 80 students in the shops and 80 in the home economics quarters.

#### AUDITORIUM.

An auditorium with a seating capacity of 800 could be provided, but it is scarcely possible to get that number of children in one school into a homogeneous group. Seven

<sup>1</sup> See pp. 26-27.

or eight classes for each period would be a normal group for a 50-class school. Then, if the auditorium day is six periods, all the classes will enjoy the advantages of the auditorium activities in the course of the day. Undoubtedly the auditorium activities have passed the experimental stage. It is obvious that chorus singing, visual instruction, appreciation lessons in music, art, and achievement can not be developed as well in classrooms as in the auditorium, because auditorium equipment is best suited to that type of instruction. Furthermore, the auditorium is the best place for definite instruction on such topics as thrift, citizenship, community, and current topics of all kinds.

Auditoriums will serve community uses, of course, and it is for this purpose, as well as those enumerated above, that they are usually included in a complete school. Many school people make the mistake of planning auditoriums that are overlarge. Medium-sized auditoriums are better for daily use, and it is only on rare occasions that an auditorium large enough to accommodate the whole school is needed. The smaller assembly room is more practical for daily school uses, but where several schools are being planned at the same time it is advisable to plan the largest auditorium in the one school that is the most central.

#### LABORATORIES.

Four laboratories are included, two for the younger children and two for the older. Two of these have greenhouses and can be specialized for nature study and horticulture. Nature study is science taught by observation and by contact with natural and living phenomena. Every normal child is a natural scientist, curious to know all about the natural phenomena about him. Only a small per cent of our children have opportunities for plant culture and animal nurture at their homes. The school must provide these life experiences in most cases. Gardening is usually considered a part of this elementary science, and it is a good plan for the greenhouses to open out on the gardens. These rooms may also be used for handwork rooms for the younger pupils, since much of their handwork will or should be a direct outgrowth of the nature study.

General science is a term applied to more advanced and specific instruction than that just mentioned above; for example, botany, zoology, chemistry, and physics in elementary schools. The aim in all this science instruction is really to develop a usable fund of knowledge about common things.

## APPENDIX IV.

### ENROLLMENT IN PUBLIC SCHOOLS, ATHENS, GA., 1913-14 TO 1919-20, INCLUSIVE.

Name of school.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.	1919-20.	Jan. 31, 1920.
<b>ELEMENTARY.</b>								
White:								
Baxter Street.....	292	341	307	297	282	272	305	294
Childs Street.....	278	299	372	405	308	345	410	421
College Avenue.....	487	541	486	513	419	408	429	434
Oconee Street.....	221	229	226	254	239	280	320	269
Nantahala Avenue.....	181	220	166	166	183	196	222	190
Total white.....	1,469	1,630	1,559	1,636	1,541	1,483	1,616	1,579
Negro:								
East Athens.....	362	366	384	416	346	298	429	309
West Athens.....	221	246	277	276	257	262	291	409
Newtown.....	209	211	220	203	182	129	182	173
Reese Street.....	338	366	337	343	288	180	163	163
Total Negro.....	1,130	1,189	1,218	1,238	1,075	869	1,045	1,125
Total white and Negro elementary.....	2,599	2,819	2,777	2,874	2,616	2,352	2,661	2,714
<b>HIGH SCHOOLS.</b>								
Athens High (white).....	254	264	308	298	312	316	345	388
High and Industrial (Negro).....	50	47	69	76	99	98	111	116
Grand total.....	2,902	3,120	3,144	3,228	3,027	2,766	3,117	3,220

## APPENDIX V.

### TAXABLE WEALTH OF ATHENS, GA., 1920.

Real property.....	\$8, 536, 125
Personal property.....	4, 963, 875
Total.....	13, 500, 000
If property were assessed at 100 per cent valuation instead of 60 per cent, the taxable wealth would be.....	22, 500, 000

## APPENDIX VI.

### EXPENDITURES FOR ALL CITY DEPARTMENTS, ATHENS, GA., 1920.

City departments.	Expenditures, 1920.	City departments.	Expenditures, 1920.
Aldermen.....	\$2,400.00	Police department.....	\$35,382.75
Advertising.....	1,784.18	Printing.....	656.99
Assessors.....	1,225.00	PUBLIC SCHOOLS.....	90,500.00
Bond commission.....	12,141.00	Stockade.....	2,068.76
Damages.....	125.00	City hall offices.....	15,788.54
Charity.....	2,982.64	Streets.....	27,589.71
City hall.....	3,773.22	Sewers.....	1,353.57
Fire department.....	30,415.02	Stock feed.....	6,381.10
Health department.....	28,455.29	Water works.....	51,833.43
Insurance.....	750.69	Total.....	329,167.75
Street lights.....	13,196.84		
Miscellaneous.....	314.02		







379.73  
U58  
E2b

DEPARTMENT OF THE INTERIOR

U5 BUREAU OF EDUCATION

BULLETIN, 1921, No. 26

# EDUCATIONAL SURVEY

OF

ELIZABETH CITY  
NORTH CAROLINA

---

*Summary of Conclusions and Recommendations*

---

A DIGEST OF THE REPORT OF A SURVEY OF THE  
PUBLIC SCHOOLS OF ELIZABETH CITY, N. C., MADE  
AT THE REQUEST OF THE BOARD OF SCHOOL  
TRUSTEES, UNDER THE DIRECTION OF THE  
UNITED STATES COMMISSIONER OF EDUCATION



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# EDUCATIONAL SURVEY OF ELIZABETH CITY, NORTH CAROLINA.

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## I. INTRODUCTORY.

On July 20, 1920, the board of school trustees invited the Commissioner of Education to undertake a survey of the schools of Elizabeth City, with the understanding that the cost would not exceed \$1,500, and that the cost of the survey would be underwritten by the Elizabeth City Chamber of Commerce.

### MEMBERS OF THE SURVEY COMMISSION.

The members of the commission appointed by the commissioner to make the survey, and to report to him their findings and recommendations, are as follows:

#### FROM THE BUREAU OF EDUCATION.

Dr. William T. Bawden, Assistant to the Commissioner, director of the survey.

Mrs. Alice Barrows Fernandez, Specialist in Industrial and Economic Relations in Education.

Mr. Walter S. Deffenbaugh, Specialist in Education in Villages and Towns.

Mrs. Henrietta W. Calvin, Specialist in Home Economics.

Miss Julia Wade Abbot, Specialist in Kindergarten Education.

#### FROM OUTSIDE THE BUREAU OF EDUCATION.

Dr. Charles G. Maphis, Professor of Education, University of Virginia, Charlottesville, Va.

Dr. Thomas Alexander, Professor of Elementary Education, Peabody College for Teachers, Nashville, Tenn.

### THE FIELD WORK.

On July 24-25 Commissioner Claxton and two members of the commission made a study of the buildings and gathered data upon which the recommendations concerning the building program were based. This part of the report was submitted to the board July 30, 1920. The remainder of the field work was done during the month of November, and included an aggregate of about 70 days.

On Friday evening, January 7, 1921, the director of the survey presented an outline of the report, and discussed the conclusions and recommendations with the board in Elizabeth City. As rapidly as the work could be completed, the full text of the report was furnished to the board in manuscript, the last chapters being mailed on July 7, 1921.

## II. A BUILDING PROGRAM.

The schools of Elizabeth City are badly congested. It is important that the city undertake a building program which will not only relieve present congestion but also provide for increase in enrollment over a period of years. In order to do this it is necessary to determine (1) how many children there are of school age in the city; (2) what is the present number of children enrolled in school and what is the present school congestion—that is, how many children are without adequate seating accommodations; (3) what has been the rate of increase in the school population over a period of years; and (4) the appropriation that will be necessary in order to give children not only seating accommodations but modern school facilities.

### NUMBER OF CHILDREN OF SCHOOL AGE.

According to the school census, there were 2,997 children between the ages of 6 and 21 in Elizabeth City in 1919-20. Eliminating those between the ages of 18 and 20, there were apparently 2,789 children of school age in the city. Of this number, 1,641 were white children and 1,148 were negro (see Table 1).

But although there were 2,789 children of school age, only 2,202 were enrolled in the public schools. Of these, 1,425 were white and 777 were negro. In other words, there were 216 white children of school age who were not in public school and 371 negro children who were not in public school; that is, 21 per cent of all children of school age were not enrolled in public school (see Table 2).

TABLE 1.—*Children of school census age; enrollment; average attendance, 1919-20.*

Children of school census age.	White.			Colored.			Total white and colored.
	Male.	Female.	Total.	Male.	Female.	Total.	
Children 6 to 7 years old, inclusive.....	134	145	779	107	100	207	486
Children 8 to 13 years old, inclusive.....	368	403	771	269	325	594	1,365
Children 14 to 17 years old, inclusive.....	278	313	591	149	198	347	938
Children 18 to 20 years old, inclusive.....	63	62	125	32	51	83	208
Total census 6 to 21.....	843	923	1,766	557	674	1,231	2,997
Enrollment of children 6 to 21.....	668	757	1,425	353	424	777	2,202
Enrollment of children 8 to 13, inclusive.....	393	429	822	225	273	498	1,320
Average daily attendance, 6 to 21.....	538	634	1,172	215	249	464	1,637
Average daily attendance, 8 to 13, inclusive..	350	380	730	150	222	372	1,102



TABLE 2.—Enrollment in 1914-15 and 1919-20 in public schools, Elizabeth City, N. C.; classrooms; special facilities; teaching force.

Names of school.	Grades (inclusive).		Net enrollment.		Per cent of increase 1914-15 to 1919-20.	Number of regular classrooms available.	Total classrooms required for present enrollment.	Excess of classrooms required over those available.	Auditorium built for purpose.	Cooking room.	Science room.	Acres in playground.	Number regular teachers. <sup>1</sup>	Principals. <sup>2</sup>	Total teaching force. <sup>3</sup>
	In 1914-15.	In 1919-20.	In 1914-15.	In 1919-20.											
White:															
Primary.....	1-3	519	607	16.9	13	16	3							1	
High school.....	4-7	473	564	19.2									13	1	
	8-11	148	254	71.6									9	1	
Total for grades.....	4-11	621	818	31.7	16	21	5	1	1	1		35	3		38
Total for white schools.....	1-11	1,140	1,425	25.0	29	37	8	1	1	1	2½				
Negro:															
Cale Street.....	1, 2		224										31	1	
Shannon Street.....	2-5		198										4		
Sawyer Town.....	1		173										1	1	
Total.....			595									1	8	2	
Normal school.....	1-8		182										43	5	48
Grand total (including children in normal school).....			2,202												

<sup>1</sup> One domestic science teacher for white schools.<sup>2</sup> All principals teach classes.<sup>3</sup> In addition to this number 5 white teachers and 1 colored teacher have been engaged for next year, 1920-21.

Obviously, any adequate building program must provide for these children whom the public school is under obligation to care for, and who would be far more likely to attend if the school accommodations were adequate and modern. On the other hand, if they do not enter school even when new buildings are provided, then the building program proposed will provide for an increase in enrollment over more than five years.

### SCHOOL CONGESTION.

#### 1. WHITE SCHOOLS.

In 1919-20 there were 1,425 white children enrolled in school, or 37 classes. There are two white school buildings—the Primary, which houses grades from 1 to 3, inclusive, and the High School, which houses grades from 4 to 7, inclusive, and 8 to 11, inclusive. In the primary school there are 16 classes but only 13 regular classrooms. In the high school there are 16 regular classrooms and 21 classes. In other words, in these two buildings there are eight more classes than there are classrooms available.

The rate of increase has been about one and one-half classes per year for the last five years. For example, in 1914-15 there were

1,140 children enrolled, while in 1919-20 there were 1,425, or an increase of 285 children, approximately eight classes.

The school authorities have made every effort to meet the increasing congestion, but they have had an almost impossible task. They have been compelled to use basement rooms which never should have been used as classrooms; corners of the auditorium have been partitioned off to make room for classes; and it is understood that even the auditorium stage has been pressed into service as a classroom.

But the situation is worse than these facts would indicate, for although there are 13 rooms in the primary school, they can not be included in the building plans, since they are really not fit for school purposes. The inadequate lighting alone should prohibit their use. In fact, if the parents of the children realized that permitting their children to study in the badly lighted, overcrowded rooms of the primary school was a menace to the eyesight and health of the children, there is no question but that they would insist that the school be abandoned and adequate appropriations made for school accommodation.

To sum up the situation in the white schools, there are 36 classes of children and only 16 available classrooms (when the primary school is eliminated), i. e., there are 20 classes without adequate seating accommodations. Moreover, an increase of between seven and eight classes, about 280 children, over the next five years must be provided for. Furthermore, the 216 children of school age not now in school should be provided for. In other words, taking the children now enrolled, 1,425, those of school age out of school, 216, and the anticipated increase during the next five years, 280, it will be necessary for Elizabeth City to so plan its building program that 48 classes of children—1,921 children—may be provided for in the coming bond issue. If this is done, not only will present congestion be relieved but adequate provision made for a period of five years.

## 2. NEGRO SCHOOLS.

According to the statistical report of the superintendent of schools for 1914-15 there were 585 children enrolled in the Negro schools in the first five grades. (See Table 3.) In 1919-20 there were 777 children enrolled in seven grades, and of this number 595 were in the three public schools, while the remainder were in the Negro normal school, which takes children in the practice school department from grade 1 through 8. (See Table 4.) The increase in the public and normal schools of children in grades 1 to 8 was 192 in five years, or at the rate of about one class a year.

## EDUCATIONAL SURVEY OF ELIZABETH CITY, N. C.

TABLE 3.—*Enrollment by grades and races in the year 1914-15.*<sup>1</sup>

Enrollment.	White.			Colored.		
	Num-ber.	Aver-age age.	Boys en-rolled.	Num-ber.	Aver-age age.	Boys en-rolled.
First grade.....	224	7	114	352	8	147
Second grade.....	159	8	87	92	10	50
Third grade.....	136	10	60	100	12	32
Fourth grade.....	144	11	74	30	13	10
Fifth grade.....	155	12	63	11	14	5
Sixth grade.....	104	14	47	.....	.....	.....
Seventh grade.....	70	15	24	.....	.....	.....
Eighth grade.....	75	15	38	.....	.....	.....
Ninth grade.....	35	16	11	.....	.....	.....
Tenth grade.....	26	17	10	.....	.....	.....
Eleventh grade.....	12	17	3	.....	.....	.....
Total.....	1,140	13	531	585	11	244
Number completing course.....	12	17	3	10	13	4

TABLE 4.—*Enrollment by grades and races in the year 1919-20.*<sup>1</sup>

Enrollment.	White.		Colored.	
	Num-ber.	Boys en-rolled.	Num-ber.	Boys en-rolled.
First grade.....	244	127	393	198
Second grade.....	192	100	107	51
Third grade.....	171	84	125	60
Fourth grade.....	165	81	59	17
Fifth grade.....	168	75	39	16
Sixth grade.....	122	57	35	14
Seventh grade.....	109	48	19	4
Eighth grade.....	103	40	.....	.....
Ninth grade.....	64	30	.....	.....
Tenth grade.....	59	20	.....	.....
Eleventh grade.....	28	6	.....	.....
Total.....	1,425	668	777	360
Number completing course.....	21	6	.....	.....

<sup>1</sup> From statistical report of city superintendent, Elizabeth City, N. C.

There is not only bad congestion in the Negro schools, but the buildings themselves are unfit for school purposes. In 1919-20, in grades 1 to 5, inclusive, were 595 Negro children attending school in three wooden frame structures. In Sawyer town school 173 children go to school in two rooms. One room has 27 double benches and the other has 28. The benches are old and scarred. In one room 54 children attend in the morning and in another 54 in afternoon. The building is nothing but a frame structure in such bad repair that pasteboard is tacked over a portion of a window where the pane has been broken. In Cale School there are 224 children in four rooms. In one room there are 31 double benches; in another, 30; in another, 29; and in the fourth, 22. In Shannon Street school there are 198 children. One room has 17 double seats, another 20, another 24½, another 23, and there is also a chapel, which is one long room with

a platform. All these buildings should be abandoned, for they are not fit for school use.

### **LACK OF MODERN SCHOOL FACILITIES.**

But there is not only great congestion in both the white and Negro schools, but also there are almost none of the modern school facilities, such as auditoriums, gymnasium, shops, laboratories, drawing and music rooms—facilities which are now recognized as essential in any modern school system and which it is necessary to include in an adequate building program. There are in the white schools one auditorium, no gymnasium, no shops, one cooking room, and one laboratory with very little equipment, no drawing room, no music room, and no library.

### **CHANGED SOCIAL AND INDUSTRIAL CONDITIONS DEMAND CHANGES IN THE SCHOOLS.**

It is often difficult for men and women who were brought up in the country a generation ago to realize the necessity of providing these facilities for children living in cities. In the olden days it made little difference that the school buildings consisted only of classrooms for studying the three R's. In those days the children had plenty of opportunity for wholesome work and play, which, educationally, were just as important for them as study. There is such a common tendency to identify "schools" and "education" that it is important to emphasize the fact that education has always consisted of work and study and play, and that children must not be deprived of any of these three elements in their education if they are to grow in health and strength and develop initiative, intelligence, and the ability to think for themselves.

Fifty years ago the environment of the average boy and girl furnished an education in wholesome activities that developed intelligence, initiative, and industrious habits. But during the past half century has come the growth of the modern city, until now half the population of the country is concentrated in cities, and the city with its overcrowding, its mills and factories, and office buildings, which gradually go up on the vacant lots, is depriving children of the opportunity for the healthy, wholesome work and play which are essential elements in their education. The city home, whether in a large or small city, is very unlike the farm with its many necessities for "learning by doing." It offers few educational opportunities in the way of healthful work which develops the ability to think by attacking problems to be solved. There is no planting or harvesting to be done; few if any animals to be taken care of; and it is a rare city home that has a workshop or laboratory. Yet children until recently have received much of their education through the opportunity to handle tools, to take care of animals, and to experiment

in making and using things. But the city not only fails to educate children in the right direction; it educates them in the wrong direction, for the street, with its dangers to the physical and moral life of the children, too often becomes their only playground. And street play means education not in health and strength and wholesome living but precocious education in all the vicious side of a city's life.

For these reasons it has come to be recognized that the city school must not only supply the opportunity for study in good classrooms under wholesome conditions, but it must also return to the children the opportunity for the helpful work and play which the home can no longer supply. It must provide playgrounds and shops and laboratories and drawing and music rooms, as well as classrooms, where they may be kept wholesomely busy all day. For Elizabeth City to plan a building program on the basis of providing merely classrooms for her school population and to ignore her obligation to furnish such modern facilities as shops, laboratories, and nature-study rooms would be to fail in her duty to the rising generation and to the best interests of the city. It is said that America is the land of equal opportunity in education. This, however, does not mean opportunity for uniform education, but opportunity for the development of the varied gifts of many individuals. Democratic education means *variety* of opportunity in accordance with the needs of the individual. If Elizabeth City does not give this variety of opportunity in work and study and play to the children of all its people, then it is failing to tap the reservoirs of power for its coming citizenship. Moreover, it is laying up trouble for itself in the future, for nothing is more serious for any community than to have the rising generation feel balked in their power of self-expression and attainment.

#### A COMPREHENSIVE BUILDING PROGRAM NEEDED.

It is obvious from the foregoing that Elizabeth City needs a building program which will relieve present congestion, provide for an increase in enrollment for at least five years, and at the same time provide the modern educational facilities, such as auditoriums, playgrounds, shops, and laboratories. To do this will involve considerable expenditure and careful planning. There are two chief methods of meeting the situation.

The first method would attempt to solve the situation by the usual procedure of adding classrooms without changing the traditional school organization. All children would be expected to be in school seats at the same time, and if provision were made for special activities, such as shops or cooking rooms, the classrooms would remain vacant when such facilities were in use. If such special facilities were provided, therefore, they would have to be in addition to a classroom for every class.

Let us consider the cost of meeting school congestion and growth—in the white schools, for example—on the basis of the traditional type of school organization.

As has been pointed out, it will be necessary, in order to take care of present enrollment and provide for growth in the white schools to make provision for 48 classes. The primary school should be abandoned. That leaves only the high school, with 16 regular classrooms; therefore it would be necessary to erect a building with 32 classrooms in order to provide for the 48 classes. The cost of a classroom unit at the present time is \$16,000. This includes the cost of auditorium and gymnasium. A 32-classroom building would therefore cost \$512,000. This amount, however, would not furnish any of the modern school facilities, such as shops and laboratories. Therefore to provide these facilities would mean an additional expense.

Elizabeth City is not peculiar in respect to her school congestion situation. Cities all over the country, even before the war, were having the greatest difficulty in meeting the increase in school enrollment. The rapid growth of population makes the congestion and financial problems extremely difficult of solution on the traditional plan of a reserved seat for every child. To keep pace with growth, therefore, merely on the basis of adding classrooms where they are needed at a given time, presents both administrative and financial difficulties. But when to this problem is added the obligation to provide the other necessary facilities, such as shops and laboratories, the problem assumes formidable proportions.

Indeed, were this plan the only alternative, the situation which the board of school trustees is now facing would be a discouraging one. Fortunately, however, there is another way out of the difficulty.

#### THE WORK-STUDY-PLAY PLAN OF ORGANIZATION.

A second possible method of solving the building problem of Elizabeth City is what is commonly known as the "work-study-play plan," now in operation in some 30 or 40 cities in the country. This plan developed in an attempt to solve the peculiar problem created by a modern city. It grew out of recognition of the fact that the growth of cities makes the educational problem far more difficult than formerly; in fact, has created a new school problem. The plan represents an attempt to meet these new conditions and to make it practicable both administratively and financially for school administrators to provide not only classroom accommodations, but also modern educational facilities, such as gymnasiums, shops, and laboratories, that children may be kept wholesomely occupied in study and work and play.<sup>1</sup>

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<sup>1</sup> For a statement of the plan and its method of operation, see Bul. 1920, No. 22, pp. 14 ff.

Let us consider how this plan can be applied to conditions in Elizabeth City.

#### A BUILDING PROGRAM ON THE BASIS OF THE WORK-STUDY-PLAY PLAN.

##### PLAN I.

1. *White schools.*—There are now 1,425 children, 36 classes, in the two white schools. This makes just about enough children for one fair-sized school. All these children should be housed in one school plant, to be located on the present high-school site. The building could be erected in the form of an H, the present high-school building forming one section, and another building erected to the rear of the present high school forming the other section, with an auditorium between the two.

As has been pointed out, the building would have to be planned to take care of a 48-class school in order to provide for a growth over a period of five years. There are, however, at the present time in the high-school building 16 regular classrooms, 4 rooms in the basement, an auditorium on the second floor, and 4 attic rooms.

Under the work-study-play plan, a school of 48 classes would require only 24 classrooms, or 8 more than are now available in the high-school building. Another building should therefore be erected to the rear of the high-school building. To do this the lot on which the present building stands should be squared, the houses to the rear of the high-school building removed, and a new building of 12 units erected, with an auditorium between this building and the existing high school. Twenty-four of the best rooms in the two buildings should be used as classrooms. That would leave 4 units, 2 of which can be used as laboratories, 1 as a drawing room, and 1 as a music room. The 4 rooms in the basement of the old building should be used as shops. In the basement of the new building a gymnasium could be provided for boys, 2 units could be used for cooking rooms, and 1 unit for another shop. The auditorium of the old building could be used as a gymnasium for girls.

In other words, with the addition of a 12-room building the following accommodations could be secured for a 48-class school: 24 classrooms, 2 gymnasiums, 2 laboratories, a drawing room, a music room, 5 shops, and a cooking room. An auditorium could be erected between the old and the new building, with entrances on the side and also with an entrance on the street, so that it could be used easily for community purposes; congestion could be relieved, and provision made for growth for 5 years.

Since a classroom unit costs approximately \$16,000, which includes the cost of an auditorium and gymnasium, a building of 12 units would cost \$192,000.

As has already been suggested, land should be purchased to square the present lot. Also additional playground space is needed, and for this purpose either the whole lot to the north of the present building or the lot directly across the street should be purchased. Of course, the lot to the north of the present building is preferable, as it would not necessitate the children crossing the street for play. Estimating the cost of land at approximately \$30,000, the appropriation for the white schools would be \$222,000.

2. *Negro schools*.—As has been pointed out, the present Negro school buildings are so inadequate that it will be necessary to abandon them and erect new buildings. At the present time (1919-20) there are 595 children in the three public schools, 15 classes. The increase has been approximately at the rate of one class a year. Therefore, provision should be made for at least 750 children, or 18 classes, in order to provide for growth for at least four years.

On the work-study-play plan, this would necessitate a building of nine classrooms and four special activity rooms—a shop for boys, a cooking room for girls, a nature-study room, and a library. An auditorium and gymnasium would be included. This makes a building of 13 units. At a cost of \$16,000 per classroom unit, a building of 13 units would cost \$208,000. Estimating the cost of land at \$10,000, the building and land would come to \$218,000. The total cost, then, of a building program as outlined would be \$440,000.

If it is desired, however, to limit the contemplated bond issue to \$300,000, making temporary arrangements for the Negro schools, and thereby postponing the erection of a permanent building, the following Plan II is suggested.

#### PLAN II.

Erect two portable buildings of the modern type for Negro children in the northern and southern ends of the town. Each building should accommodate 10 classes. This would necessitate four classrooms, \$4,000; an auditorium, \$2,500; gymnasium, \$2,500; a shop, \$2,000; a cooking room, \$3,000; a drawing room, \$1,000; nature-study room, \$1,000. All these units can be combined into a single building with corridor, principal's office, store, showers, and heating plant, making a total approximate cost of \$30,000 for each building. This would make the total budget for the Negro schools \$60,000, or with the cost of sites approximately \$70,000, thus bringing the total budget to approximately \$300,000.



*Cost of building program according to Plan I.*

## White school:

Erect a 12-unit building which, with present high-school building,  
would provide for a 48-class school—

Cost of building.....	\$192, 000
Cost of land.....	30, 000
Total.....	<u>222, 000</u>

## Negro school:

Erect a 13-unit building which will house an 18-class school—

Cost of building.....	208, 000
Cost of land.....	10, 000
Total.....	<u>218, 000</u>

Grand total.....	<u>440, 000</u>
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*Cost of building program according to Plan II.*

## White school:

Erect a 12-unit building which, with present high-school building,  
would provide for a 48-class school—

Cost of building.....	\$192, 000
Cost of land.....	30, 000
Total.....	<u>222, 000</u>

## Negro school:

Two movable buildings each to contain—

Four classrooms.....	4, 000
Auditorium.....	2, 500
Gymnasium.....	2, 500
Shop.....	2, 000
Cooking room.....	3, 000
Drawing room.....	1, 000
Nature study.....	1, 000

15, 000

Corridors, heating plant, etc.....	15, 000
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Total.....	<u>30, 000</u>
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Cost of two buildings.....	60, 000
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Cost of land.....	10, 000
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Total.....	<u>70, 000</u>
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Grand total cost for both white and Negro schools.....	292, 000
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**III. ORGANIZATION AND ADMINISTRATION.****APATHY OF THE BOARD OF ALDERMEN.**

The board of aldermen is charged by law with the duty of electing the members of the board of education. Four vacancies occur each year. On Monday, December 6, 1920, at a meeting of the board of

aldermen, nine vacancies in the board of education were filled. It appears, therefore, that the board of aldermen has not taken sufficient interest in the affairs of the public schools to discharge its duties at the proper time. The fact that this lapse could occur without public protest suggests the absence of a keen interest in their schools on the part of the citizens and taxpayers of Elizabeth City.

#### INTEREST OF THE BOARD OF EDUCATION IN SCHOOL AFFAIRS.

Some indication of the degree of interest taken in school affairs is afforded by noting the regularity with which members attend the meetings of the board.

The minutes of the board were examined, and the attendance noted for the period from August 10, 1917, to November 5, 1920, or three years and three months. During this period there were a number of interruptions in the regular order of meetings. For example, no meeting was held between December 13, 1918, and February 7, 1919; no meeting was held between October 16, 1919, and February 24, 1920.

During the period mentioned 41 meetings were held, at only 3 of which were more than 12 members present; there were 8 meetings at which only 6, 7, or 8 members were present. The average attendance was only 10 members. See table following:

*Attendance of members of the board of education at its meetings Dec. 13, 1918 to Feb. 7, 1919.*

Number of mem- bers present.	Number of meetings.	Aggregate attendance.
6	2	12
7	3	21
8	3	24
9	10	90
10	7	70
11	6	66
12	7	84
13	2	26
14	1	14
Total.....	41	407

If 16 members had been present at each of the 41 meetings, the aggregate attendance would be 656; the actual attendance was 407, or only 62 per cent. The passing grade in the schools under the board's direction is 75.

During the period from August 29, 1919, to November 5, 1920, the board held 13 meetings. Only one member attended 13 meetings; only 6 members attended 10 or more meetings. The average number of meetings attended was 9.5. See table following:

# EDUCATIONAL SURVEY OF ELIZABETH CITY, N. C.

Attendance of members of the board of education at its meetings Aug. 29, 1920.

Number of meetings attended.	Number of members attending.	Aggregate attendance
2	1	2
3	2	6
5	1	5
6	2	12
7	1	7
8	2	16
9	1	9
10	2	20
11	1	11
12	2	24
13	1	13
Total.....	13	125

If 16 members had attended each of the 13 meetings, the aggregate attendance would be 208; the actual attendance was 125, or only 60.1 per cent.

The efficiency of the board, as well as the degree of active interest manifested, so far as these are indicated by regularity of attendance upon the official meetings of the board, have been deteriorating.

*Selection of the school board.*—The school board of Elizabeth City is composed of 16 members, 4 from each of the 4 wards, appointed by the board of aldermen for a term of 4 years.

Although the method of choosing board members and the size of the board are contrary to general practice, and to the general opinion of students of school administration, the survey committee does not recommend that the method of selecting members be abandoned, but it does recommend that the size of the board be reduced to 5 members, appointed at large for a term of 5 years, one member to be appointed each year.

*Size of board.*—The school board should be composed of fewer members, for the following reasons: The present board of 16 members is unwieldy and unnecessary for the transaction of business; a smaller board would consider school matters more carefully; in a large board too much dependence is placed on a few to do the thinking and the work; the individual member feels that he does not count for much in a large board, and often loses interest.

The recommendation that the size of the board be reduced is made primarily on the ground that the present board does not function efficiently.

*Term of office.*—The tendency in the school practice is to lengthen the term of office of members of the board. A long term of office tends to make the board less responsive to the needs of the community, and to the needs of the age who

with only partial renewal of the personnel at each new election, usually insures a settled administrative policy. The present term of 4 years in Elizabeth City is satisfactory in this respect. The change to 5 years is suggested chiefly in view of the fact that it is recommended that the board be composed of 5 members.

*Ward appointment.*—Appointment of members of the board of education should be made irrespective of residence by wards. The schools belong to the entire city. Just what is gained by appointment by wards no one in Elizabeth City could make clear.

At present members of the board of education are virtually chosen by the aldermen of their respective wards, rather than by the entire board of aldermen, representing the entire city.

With a board of only 5 members, and only one to be appointed each year, the board of aldermen would approach the task of selecting from the entire city the person best qualified for the position from an entirely different point of view.

*Method of choosing.*—At present, it is recommended that the board of aldermen continue to appoint members of the board of education, in preference to popular election, which is the more commonly accepted practice.

This recommendation is based on the belief that in the present state of public opinion in Elizabeth City those persons who are best qualified to serve on the school board would probably not be active candidates for popular election, or allow their names to be used.

#### POWERS AND DUTIES OF THE SCHOOL BOARD.

*Control of funds.*—The school board of Elizabeth City has, as it should have, complete control of the expenditure of the school funds, once they are appropriated by the board of aldermen and apportioned from the State and county school funds.

Without definite recommendation of a change in the present arrangement, it may be stated that the present tendency in practice is to make city boards of education entirely independent of other branches of city government, so that they may have power to levy, within statutory limitations, a tax sufficient to maintain the public schools on a high plane of efficiency.

When the board is elected by the people, and thus responsible directly to the people, it is not likely to embark on undertakings which do not command general popular approval.

*Legislative, executive, and inspectorial powers.*—The work of a board of education may be classed as legislative, executive, and inspectorial.

No school board can perform all of these functions, because of lack of time, and, more especially, because its members are not

fitted to perform them all. Progressive boards limit their functions to the first and last, and employ a superintendent with special training and qualifications to serve as the executive of the board.

Legislative functions include the making of general policies, and regulations relative to their execution. These policies concern the scope of the school system, selection of sites for buildings, the kinds of schools to be established and maintained, the facilities to be supplied, and the apportionment of the school funds. The Elizabeth City school board does not give adequate time and attention to legislative functions.

The board employs an executive officer, the superintendent of schools, and apparently gives him full executive authority.

The board practically ignores its inspectorial function, so far as evidence could be found. The board does not know what the schools are doing.

Those features of the work of the schools concerning which the board should be informed include:

- General school conditions.
- Regularity of attendance.
- Progress of the pupils.
- Cost per pupil in elementary schools.
- Cost per pupil in high school.
- Cost per pupil in colored schools.
- Cost per pupil for each item of expenditure.
- Sanitary conditions.
- Attitude of pupils toward school work.
- Attitude of the teachers.
- Careers of pupils after leaving school.

Board members should visit the schools occasionally to observe general school conditions at first hand. The board should keep informed upon the practice in what are considered the good city school systems of the country.

Members of the board, with the superintendent of schools, should visit other school systems from time to time, and attend educational meetings, and require from the superintendent reports upon what has been seen and heard.

If the board were better informed in school matters it would then be able to ask the superintendent questions concerning the administration and supervision of the Elizabeth City schools, such as:

What is the best practice and what the best educational thought regarding corporal punishment?

Should children 12 to 15 years of age be taught in the same classes with children 6 years of age?

What measures can be taken to reach children of school age who are not now in school?

### THE SUPERINTENDENT'S REPORT.

The superintendent should keep in orderly and systematic manner statistical information concerning significant matters relating to the school. In other words, the superintendent should be making a continuous survey of the school system.

In a school system that is steadily improving in the quality of its work, there will be found, among others, the following characteristics:

(1) From year to year the school system will enroll a larger percentage of children of school age, and will carry them further along in the grades before they drop out.

(2) The percentage of pupils in school above compulsory attendance age to those of compulsory attendance ages will increase.

(3) The proportion of over-age pupils and pupils who are making slow progress will decrease.

(4) Fewer pupils will fail of promotion, and fewer will drop out of school before completing the course.

(5) Sufficient teachers and classrooms will be provided as the number of children increases, so that all may be accommodated comfortably and adequately.

(6) The professional qualifications of the teachers will be advancing steadily.

(7) There will be increasing regularity of attendance.

(8) When pupils leave school before the completion of grammar school or high school, the reasons will be ascertained, and in the light of information thus gained the work of the schools will be modified in the endeavor to meet the needs of such children more adequately.

(9) The careers of children will be followed up after they leave school.

(10) Instruction in the schools will react more and more upon the homes and lives of the people; especially instructions in health, music, art, literature, manual training, and home economics.

Definite information concerning these and other matters should be collected, compiled, and interpreted.

Records now in the office of the superintendent contain very little to show in what respects the schools of Elizabeth City are better to-day than they were 5 or 10 years ago.

The board should at once provide the means of keeping simple but adequate records, including a clerk or secretary to the superintendent, who has some knowledge of this kind of work.

The data to be collected should include:

(1) The number of children of each year of age in the city, and the number in school, both public and private.

(2) The number of children of compulsory attendance ages in and out of school.

(3) The number of children above compulsory attendance ages in and out of school.

(4) The ratio of school pupils above compulsory attendance age to those of compulsory attendance ages; also annual changes in this ratio.

(5) Number of pupils for each 100 beginners who drop out of school at each age, and at each grade; number of those leaving to enter school elsewhere; number leaving for other specified causes.

(6) Per cent of those entering the first grade who complete the elementary school course, and the high school course.

(7) Per cent of those completing the elementary school course who enter high school.

(8) Per cent of those entering the high school who complete the course.

(9) Per cent of high-school graduates who enter college; the kinds of courses pursued in college, and the quality of work done.

(10) Age-grade distribution of all pupils for the entire system, and for each school separately.

(11) Average daily attendance based on number belonging and on school population; also distribution showing the number and per cent of children attending 1 to 10 days, 11 to 20 days, etc.

(12) Present occupations of those who have graduated from the high school within 4, 5, or 10 years; and similar information concerning those who have left during the same period without completing the course.

(13) Number and per cent of pupils who fail of promotion in each grade and in each subject.

(14) Ability and achievements of pupils, as determined by school grades and standard objective tests.

(15) Various cost items.

(16) Preparation, experience, and other significant facts regarding the teachers.

(17) Significant facts regarding schools in other cities.

The facts having been collected and compiled the superintendent should use them in preparing his monthly and annual reports to the board. The annual report should be published for distribution to the public.

From the data collected, tables and charts should be prepared and published in the annual report, and also from time to time in the local newspapers.

## TEACHERS' SALARIES.

*Elementary schools (white).*—The median salary paid white elementary school teachers in Elizabeth City is low in comparison with the amounts paid in other cities having a population of 8,000 to 30,000.

In a group of 68 cities located in the Eastern States Elizabeth City is next to the lowest; in a group of 64 cities in the Great Lakes States Elizabeth City ranks 62d; in a group of 33 cities in the Great Plains States Elizabeth City ranks 27th; in comparison with a group of 24 cities in the Western States Elizabeth City ranks lowest; in a group of 33 cities in the Southern States Elizabeth City ranks 23d.

These figures relate to the school year 1919-20; it is probable that Elizabeth City has somewhat improved its relative position this year.

The salary schedule would be improved by providing a greater difference between the minimum and maximum salaries, and by providing a longer period in which to reach the maximum.

The present plan offers no inducement for special industry or for sustained effort to secure self-improvement.

The following salary schedule is suggested for consideration by the Elizabeth City board:

TABLE 5.—*Suggested salary schedule of elementary and high school teachers (white).*

Teachers.	Length of time of appointment.	Elementary.		High school.		Yearly salary increase.	Year in which group maximum can be reached.
		Minimum.	Maximum.	Minimum.	Maximum.		
One-year teachers (probationary for 3 years).	1 year...	\$1,000	\$1,150	\$1,200	\$1,350	\$75	Third.
Three-year teachers.....	3 years..	1,225	1,375	1,425	1,575	75	Third.
Five-year teachers.....	5 years..	1,450	1,650	1,650	1,850	50	Fifth.
Permanent teachers.....	( <sup>1</sup> )	1,700	2,000	1,900	2,200	50	Seventh.

<sup>1</sup> Until retired.

When the maximum of any group is reached by any teacher, the following alternative courses of action should be open to the board:

(1) Termination of the contract (permissible at the close of each year in group No. 1).

(2) Reappointment annually at the group maximum salary.

(3) Promotion to the next higher group.

Promotion from group to group beyond group No. 2 should be granted only to teachers who have shown special merit and have given evidence of valuable professional study.

Elementary-school and high-school teachers of equivalent preparation, experience, and skill should receive the same salary.



Provision should be made for the following supervising principals, to be held only by persons who have had definite preparation for the work of supervision, and whose programs provide a definite amount of time for this purpose:

- (a) Grades 1 to 6, inclusive.
- (b) Junior-senior high school (providing these are both housed in the same building).
- (c) The colored schools.

Principals should be assigned definite duties and responsibilities as such, and the superintendent should then not interfere within these limits.

More efficient enforcement of the compulsory education legislation is needed. The truant officer stated that he hardly ever receives a report of truancy on the part of the colored children. The superintendent stated that no earnest attempt is made to compel regular attendance on the part of colored children.

The school nurse and attendance officer service might be combined to advantage.

Special teachers of the following subjects should be provided, whose duties should include teaching classes of the older children and assisting the regular teachers of the lower grades to plan the work done in the regular classrooms:

- (a) Manual training.
- (b) Drawing.
- (c) Home economics.
- (d) Music.
- (e) Physical education and athletic sports.
- (f) Nature study, gardening, agriculture.
- (g) Commercial branches.

The better teachers in the lower grades should be promoted with their classes for periods of two or three years, and the poorer ones eliminated.

There should be a gradual reorganization of the method of instruction, which now consists largely of questions and answers based on formal textbook assignments; there should be more use of the problem method, the socialized recitation, and supervised study.

One member of the board of school trustees now serves as secretary of the board, and for this service is paid \$300 per annum. This arrangement should be discontinued, and a capable full-time secretary employed, who will serve as secretary-clerk to the superintendent of schools and also secretary to the board.

The office of the superintendent should be provided with means for the safe-keeping of the school records.

Examples of school programs offered for consideration by the Elizabeth City board may be found in Bulletin, 1920, No. 21, pp. 24, 25, and Bulletin, 1918, No. 48, p. 39.

### FORMAL EXAMINATIONS.

The Elizabeth City schools depend to a great extent upon examinations held at stated intervals to determine the "marks" to be given to a pupil and to determine whether he should be promoted.

These examinations have led to "cramming," to undue worry, and to the practice of working with the sole end in view of passing the examinations, thus causing the entire work of the school to center about this one idea. These examinations have helped put a premium upon worry methods, and they have occasioned a vast amount of unnecessary and unprofitable labor for the teacher in reading an endless number of papers.

A test is a useful means of showing the teacher where her instruction has been weak, and where steady, but it is practically useless as a means of determining what pupils should be promoted.

The formal examination has fallen into disrepute, and is but little used in progressive school systems to determine promotions.

### COST OF MAINTAINING THE SCHOOLS.

The cost of maintaining the Elizabeth City schools is much below the average for cities of its size, when measured by cost per pupil in average daily attendance, cost per pupil enrolled, and by the tax rate on the real valuation.

The cost per pupil in average daily attendance in Elizabeth City is \$29.39, while the average for all cities in the United States in 1917-18 was \$49.41; the average for cities of 10,000 to 25,000 population was \$44.81.

The average cost per pupil enrolled in Elizabeth City is \$21.88, while the average for the United States, including rural schools, was \$30.91 in 1918.

When compared with a list of cities whose schools are considered good, the cost per pupil in Elizabeth City is very low.

The total tax rate in Elizabeth City for school purposes is 49 cents on the \$100. This includes the State, county, and city rates for schools. The tax levied by the board of aldermen is only 16 cents.

In order to maintain the schools as they should be, the city tax rate for school purposes should be doubled. To this rate should be added enough to take care of interest and sinking fund on indebtedness. This would possibly add 16 cents more, making a total tax rate of 48 cents to be levied by the board of aldermen.

Adding to this the 33 cents now levied by the State and county, Elizabeth City would be taxed 81 cents on the \$100 for school purposes. The average rate for cities the size of Elizabeth City is 66 cents (1917-18); some cities have a rate of 100 cents and more.

If the tax rate were to be increased, say, 30 cents on the \$100, very few persons would have more than \$15 additional tax annually to pay, since 1,219 of the 1,602 individual white taxpayers are assessed at less than \$5,000 and only 6 of the 770 colored taxpayers are assessed at \$5,000 or more.

The following table shows the number of taxpayers and the estimated average amount of the assessed valuation of each:

TABLE 6.—*Real and personal property of individuals subject to city taxes, Elizabeth City, N. C.*

WHITE INDIVIDUALS.

Amount.	Number of individuals assessed (white).	Estimated average amount.	Estimated aggregate amount.
Less than \$1,000.....	590	\$500	\$295,000
\$1,000 to \$1,999.....	629	3,000	1,887,000
5,000 to 9,999.....	204	7,500	1,530,000
10,000 to 19,999.....	98	15,000	1,470,000
20,000 to 29,999.....	23	25,000	575,000
30,000 to 39,999.....	25	35,000	875,000
40,000 to 49,999.....	11	45,000	495,000
50,000 to 99,999.....	14	75,000	1,050,000
100,000 to 199,999.....	6	150,000	900,000
200,000 and over.....	2	275,000	550,000
Total.....	1,602	.....	9,627,000

COLORED INDIVIDUALS.

Amount.	Number of individuals assessed (colored).	Estimated average amount.	Estimated aggregate amount.
Less than \$1,000.....	630	\$500	\$315,000
\$1,000 to \$1,999.....	108	1,500	167,000
2,000 to 2,999.....	21	2,500	52,500
3,000 to 3,999.....	3	3,500	10,500
4,000 to 4,999.....	2	4,500	9,000
5,000 and over.....	6	11,000	66,000
Total.....	770	.....	620,000

TABLE 7.—*Real and personal property of corporations subject to city taxes, Elizabeth City, N. C.*

Amount.	Number of corporations assessed.	Estimated average amount.	Estimated aggregate amount.
Less than \$1,000.....	6	\$500	\$3,000
\$1,000 to \$1,999.....	10	3,000	30,000
5,000 to 9,999.....	9	7,500	67,500
10,000 to 19,999.....	9	15,000	135,000
20,000 to 29,999.....	3	25,000	75,000
30,000 to 39,999.....	7	35,000	245,000
40,000 to 49,999.....	5	45,000	225,000
50,000 to 99,999.....	4	75,000	300,000
100,000 to 199,999.....	11	150,000	1,650,000
200,000 and over.....	3	350,000	1,050,000
Total.....	67	.....	3,780,000

The following summary, taken from the books in the assessor's office, is added in order to supplement the "estimates" in the preceding table:

TABLE 8.—*Summary of assessed valuation of property subject to city taxes, Elizabeth City, N. C.*

White individuals.....	\$9, 343, 255
Colored individuals.....	589, 825
Corporations.....	3, 366, 970
Total.....	13, 300, 050

On the showing of these figures, it is evident that the tax rate for school purposes could be greatly increased, and that very few would have more than \$10 to \$15 additional tax to pay.

#### IV. SCHOOL CENSUS AND ENROLLMENT.

A school census, taken early in the school year, shows that there are in Elizabeth City 1,857 white children from 6 to 20 years of age. The number of white children enrolled is 1,410. There are thus 462 children from 6 to 20 years of age not in school. Since 154 of these are 19 or 20 years of age, the number of school age not in school is 308. Practically all of these are from 14 to 18 years of age. The following table gives the number of census children by ages and the enrollment by ages:

TABLE 9.—*Census of white children—School enrollment.*

	Ages.																		
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
Census.....	128	152	138	154	139	140	142	114	135	106	131	116	106	92	62				
Enrollment.....	127	118	145	147	141	149	143	105	111	82	59	41	21	6	0				

It may be noted that at several ages the enrollment is more than the school census. This discrepancy is small and may possibly be accounted for by the fact that the enrollment figures for June included all children in school since September.

Some of these children may not have been in the city when the census was taken and others may have moved in after it had been taken. Then again some children may have been transferred and possibly counted twice.

The important point to note is that many boys and girls in Elizabeth City from 14 to 18 years of age are not in school. This point should not be overlooked by the school board in planning for a new high-school building, for it may be safely predicted that many more of the

older boys and girls will remain in school when a modern high-school building is erected and interesting courses of study are offered.

There are in Elizabeth City 1,314 colored children from 6 to 20 years of age. Of these, 692 are enrolled in school, leaving 632 not in school. The following table shows the number of children at each age, the number in, and the number not in school:

TABLE 10.—*Census of colored children of census age—School enrollment.*

	Ages.																	Total.
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Census.....	111	112	108	96	116	104	101	80	68	103	74	70	65	68	48	1,324		
Enrollment.....	82	70	97	78	82	89	82	37	30	19	14	7	4	1	.....	692		
Not in school.....	29	42	11	18	34	15	19	43	38	84	60	63	61	67	48	632		

Of the children 6 to 14 years of age, inclusive, 31 per cent are not in school, while of the children 15 to 18 years of age, inclusive, the high-school ages, 86 per cent are not in school. It is a well-known fact that few of the Negro children in Elizabeth City reach the fifth grade; many barely complete the third. Thus the 86 per cent of children over 14 years of age not in school have scarcely the bare tools, reading and writing, and are but a few degrees removed from illiteracy.

In order to understand the degree of success with which a school system is functioning, it is of prime importance to ascertain the facts concerning the children in the schools, their ages, their stages of advancement, their rates of progress through the grades, and the extent to which they continue in school to the completion of the course.

There is at present no adequate system of records to give these facts concerning the children in the Elizabeth City schools. A special form was prepared on which the teachers gave the information from which it has been possible to derive certain of the more important facts.

#### AGE-GRADE DISTRIBUTION.

The first step is to arrange the pupils according to their ages and the grades in which they are enrolled. A table showing these facts is called an age-grade distribution; see Tables 11 and 12. Such tables should be prepared for the entire school system at least twice each year, and carefully studied and compared with those made previously.

TABLE 11.—*Summary of enrollment in white elementary schools, Elizabeth City.*

Grades.	Sex.	Ages.															Total.
		6	7	8	9	10	11	12	13	14	15	16					
1.....	Male.....	58	27	14	6	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	109
	Female.....	57	18	14	6	2	1	1	1	1	.....	.....	.....	.....	.....	.....	100
	Total.....	115	45	28	12	4	2	1	1	1	1	.....	.....	.....	.....	.....	209
2.....	Male.....	6	25	24	20	7	4	5	2	1	1	.....	.....	.....	.....	.....	94
	Female.....	6	45	18	12	7	4	1	1	1	.....	.....	.....	.....	.....	.....	99
	Total.....	12	70	42	32	14	8	6	3	1	1	.....	.....	.....	.....	.....	185
3.....	Male.....	.....	.....	35	19	18	16	4	1	2	.....	.....	.....	.....	.....	.....	95
	Female.....	.....	3	36	22	16	6	5	.....	.....	.....	.....	.....	.....	.....	.....	88
	Total.....	.....	3	71	41	34	22	9	1	2	.....	.....	.....	.....	.....	.....	183
4.....	Male.....	.....	.....	.....	2	25	13	22	11	5	3	.....	.....	.....	.....	.....	81
	Female.....	.....	.....	.....	2	34	23	12	9	7	3	.....	.....	.....	.....	.....	90
	Total.....	.....	.....	4	59	36	34	20	12	6	.....	.....	.....	.....	.....	.....	171
5.....	Male.....	.....	.....	.....	.....	1	18	17	18	11	5	7	.....	.....	.....	.....	77
	Female.....	.....	.....	.....	.....	1	27	20	15	5	3	2	.....	.....	.....	.....	73
	Total.....	.....	.....	.....	.....	2	45	37	33	16	8	9	.....	.....	.....	.....	150
6.....	Male.....	.....	.....	.....	.....	.....	1	15	12	14	9	3	1	.....	.....	.....	55
	Female.....	.....	.....	.....	.....	1	7	27	21	7	7	4	.....	.....	.....	.....	74
	Total.....	.....	.....	.....	.....	1	8	42	33	21	16	7	1	.....	.....	.....	129
7.....	Male.....	.....	.....	.....	.....	.....	.....	2	14	14	8	3	4	.....	.....	.....	45
	Female.....	.....	.....	.....	.....	.....	.....	2	23	10	5	10	1	.....	.....	.....	51
	Total.....	.....	.....	.....	.....	.....	.....	4	37	24	13	13	5	.....	.....	.....	96
Total...	Male.....	64	52	75	71	59	77	64	47	29	14	5	.....	.....	.....	.....	557
	Female.....	63	66	70	76	82	72	75	31	18	16	1	.....	.....	.....	.....	570
	Total.....	127	118	145	147	141	149	139	78	47	30	6	.....	.....	.....	.....	1,127

TABLE 12.—*Summary of enrollment in colored elementary schools, Elizabeth City.<sup>1</sup>*

Grades.	Sex.	Ages.																Total.
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21 and over.	
1.....	Male.....	7	34	29	37	15	23	16	4	2								167
	Female.....	5	47	40	35	24	16	10	10	3	1	1	1					193
	Total.....	12	81	69	72	39	39	26	14	5	1	1	1					360
2.....	Male.....		1	1	3	4	9	5	1		1	1						26
	Female.....				13	10	1	11	7	1								43
	Total.....		1	1	16	14	10	16	8	1	1	1						69
3.....	Male.....				2	10	11	8	11	4		1						47
	Female.....				7	8	8	8	9	5	2							47
	Total.....				9	18	19	16	20	9	2	1						94
4.....	Male.....				2	8	11	4	4	1								30
	Female.....				5	2	8	8	8	1		1					1	34
	Total.....				7	10	19	12	12	2		1					1	64
5.....	Male.....					1	2	7	2	2	1	3	1	1				20
	Female.....					2	7	14	4	6	1	2	1	1				38
	Total.....					3	9	21	6	8	2	5	2	2				58
6.....	Male.....						1	2	2		3	1	1	2	1			13
	Female.....					1	2	4		5	3							15
	Total.....					1	3	6		2	5	6	1	1	2	1		28
7.....	Male.....									3	1	3	3					10
	Female.....							1	2	8	7	3	1				2	24
	Total.....							1	2	11	8	6	4				2	34
Total.....	Male.....	7	35	30	42	31	52	43	29	14	7	7	7	5	3	1		313
	Female.....	5	47	40	55	47	30	46	53	23	23	12	7	2	1			394
	Total.....	12	82	70	97	78	82	89	82	37	30	19	14	7	4	1		707

<sup>1</sup> This table includes all colored pupils reported in Elizabeth City public schools, as follows: Sawyer Town, grade 1; Cale Street, grades 1 and 2; Shannon Street, grades 2-5; training department, State Normal Schools (exclusive of pupils not resident in Elizabeth City), grades 1-7.

The usual age at which children enter school is 6 years, though many do not enter until they are 7. In considering the age-grade table, therefore, it is customary to regard children of 6 or 7 years of age as "of normal age" for grade 1, and children of 7 or 8 years of age as of normal age for grade 2, and so on.

The first facts to be noted in these tables are the excessive proportions of children who are beyond the normal ages for the grades in which they are enrolled, and the wide spread of ages represented in individual grades, especially grades 1 and 2.

It does not require expert professional knowledge to understand that something is wrong, for example, when white children of all ages from 6 years to 15 years are grouped together attempting to do the same work. Here is a spread of 10 years in the ages of the children, 3 years more than the span of the entire elementary school course. Included in this group are little tots of 6, as well as youths who have entered upon the adolescent period and are old enough to be in the second or third year of high school, and children of all ages in between; and all are trying to do second-year work.

The situation is even worse in the colored schools, where children of all ages from 5 years to 16 years are found in the first grade.

The facts with regard to acceleration and retardation of pupils are summarized in Table 13.

TABLE 13.—*Acceleration and retardation—Summary of enrollment in Elizabeth City.*

WHITE SCHOOLS.

Grades.	Number of pupils.				Per cent of pupils.			
	Accel- erated.	Of normal age.	Re- tarded.	Total.	Accel- erated.	Of normal age.	Re- tarded.	Total.
1.....		160	49	209	0.0	76.5	23.5	100.0
2.....	12	112	65	189	6.3	59.2	34.5	100.0
3.....	3	112	68	183	1.6	61.4	37.0	100.0
4.....	4	95	72	171	2.3	55.6	42.1	100.0
5.....	2	82	66	150	1.3	54.7	44.0	100.0
6.....	9	75	45	129	7.0	58.1	34.9	100.0
7.....	4	61	31	96	4.1	63.5	32.4	100.0
Total.....	34	697	396	1,127	3.0	62.0	35.0	100.0

COLORED SCHOOLS.

1.....	12	150	198	360	3.3	41.7	55.0	100.0
2.....	1	17	51	69	1.4	24.6	74.0	100.0
3.....		27	67	94	.0	28.6	71.4	100.0
4.....		17	47	64	.0	26.6	73.4	100.0
5.....		12	46	58	.0	20.7	79.3	100.0
6.....	1	9	18	28	3.6	32.1	64.3	100.0
7.....		3	31	34	.0	8.8	91.2	100.0
Total.....	14	235	458	707	1.9	33.3	64.8	100.0

From this summary it is observed that more than one-third of the white pupils and nearly two-thirds of the colored pupils are

"retarded," that is, behind the grades that they would be in if they had entered school as late as 7 years of age and had then progressed at the normal rate of one grade each year. For the white children the amount of retardation is greatest in grades 4 and 5, 42 per cent and 44 per cent, respectively, and for colored children 91 per cent in the seventh grade.

For comparison with other school systems Table 14 has been prepared.

TABLE 14.—*Per cent of children under age, of normal age, and over age.*

Cities.	Under age.	Of normal age.	Over age.
Elizabeth City, white.....	3.0	62.0	35.0
Elizabeth City, colored.....	1.9	33.3	64.8
Elyria, Ohio <sup>1</sup> .....	24.3	42.5	33.1
Average, 29 cities <sup>2</sup> .....	29.0	34.0	37.0

<sup>1</sup> See Bull., 1918, No. 15, p. 47.

<sup>2</sup> Ayres: Identification of the Misfit Child.

From these figures it appears that the amount of retardation in the Elizabeth City schools is not excessive when compared with other cities, though in grades 4 and 5 it is considerably greater. The comparison shows in a striking manner, however, the deficiency of Elizabeth City in the proportion of children who are under age for the grades in which they are enrolled. Only 3 per cent of white children and 2 per cent of colored children are under age, whereas in other cities the proportions are about one-fourth or more.

#### PER CENT OF DISTRIBUTION BY GRADES.

Next to be considered is the proportionate distribution of the children through the grades. (See Table 15.)

TABLE 15.—*Per cent of pupils (white) in each grade.*

Grades.	Elizabeth City.	Four States having the 7-4 plan. <sup>1</sup>	Grades.	Elizabeth City.	Four States having the 7-4 plan. <sup>1</sup>
Kindergarten.....		0.26	7.....	6.9	7.23
1.....	15.0	23.61	8.....	7.0	4.06
2.....	13.5	13.65	9.....	6.2	2.42
3.....	13.1	13.35	10.....	3.0	1.53
4.....	12.2	12.86	11.....	3.1	.98
5.....	10.7	11.02			
6.....	9.3	9.03	Total.....	100.0	100.00

<sup>1</sup> See Bul., 1920, No. 11, Table 3, p. 20.

In comparison with average conditions in other school systems having seven years of elementary school and four years of high school, Elizabeth City has fewer children in the first grade and more in the high-school grades.



Table 16 has been prepared to show conditions in the elementary schools separately.

TABLE 16.—*Per cent of elementary school pupils in each grade.*

Grades.	White.		Colored.	
	Elizabeth City.	Four States having 7-4 plan. <sup>1</sup>	Elizabeth City.	Four States having 7-4 plan.
Kindergarten.....		0.29		0.01
1.....	18.6	25.94	51.9	33.28
2.....	16.8	15.00	9.8	17.19
3.....	16.2	14.67	13.3	14.91
4.....	15.2	14.13	9.0	12.29
5.....	13.3	12.11	8.2	8.52
6.....	11.4	9.92	3.9	5.15
7.....	8.5	7.94	4.8	2.65
Total.....	100.0	100.00	100.0	100.00

<sup>1</sup> See Bul., 1920, No. 11, Table 3, p. 20.

From these figures it appears that for the white schools, with the exception of grade one, the distribution does not vary significantly from that of other cities. The distribution of pupils in the colored schools, however, is so abnormal as to suggest the complete lack of systematic grading.

#### HOLDING POWER OF THE SCHOOLS.

Another measure of the efficiency of a school system is the success with which it retains the pupils until the completion of the course. For each 100 children who enter, how many complete the elementary school course, and how many complete the high-school course?

Answers to these vital questions can not now be found for the Elizabeth City schools; for the essential facts are not available. In the absence of definite knowledge as to the number of children entering school each year for the first time, the answers can be approximate only.

It is possible, for example, to compute the number of children in each grade for each 100 children in grade 1. (See Table 17.)

TABLE 17.—*Number of children in each grade, based on 100 in the first grade.*

Grades.	Elizabeth City.		Average of 30 cities (white). <sup>1</sup>	Grades.	Elizabeth City.		Average of 30 cities (white). <sup>1</sup>
	White.	Colored.			White.	Colored.	
1.....	100	100	100	7.....	46	9	52
2.....	91	19	88	8.....	46		43
3.....	88	26	77	9.....	41		
4.....	82	18	75	10.....	20		
5.....	72	16	70	11.....	50		
6.....	62	8	63				

<sup>1</sup> Figures for 1918-19; see Bul., 1920, No. 27, p. 21. Average of 30 cities of United States with a population of 10,000 or under.

It is to be observed, first, that these figures are not based on 100 beginners, for, as will appear hereafter, there are many repeaters in grade 1. Here, again, the figures for Elizabeth City compare favorably with those of other cities.

However, further analysis is necessary before conditions can be fully understood.

It is possible to arrive at the approximate number of children reaching any given age each year by computing the average of the numbers over a period of years. For this purpose ages 7 to 12 years are chosen, in order to include the groups least likely to be affected by late entrance to and early withdrawal from school. (See Table 18.)

TABLE 18.—*Number of pupils 7 to 12 years of age in Elizabeth City.*

Ages in years.		White.	Colored.
7.....		118	70
8.....		145	97
9.....		147	78
10.....		141	82
11.....		149	89
12.....		143	82
Total .....		843	498
Average.....		140	83

The total number of children arriving at school age each year on the average, for whom school facilities should be provided, is thus shown to be approximately 140 white and 83 colored, or 223. If all children enter at about the same age, and progress through the schools at the normal rate of one grade each year, there would be approximately 140 white pupils and 83 colored pupils in each of the seven grades.

If more than these numbers are found in any grade, it is evident that children are repeating their work, or else, in some cases, possibly they have entered school earlier or later than the normal age at entrance. Adequate records in the superintendent's office would assist in determining causes and in planning remedies.

Whatever the causes, Elizabeth City is now maintaining six first-grade classes for white pupils, with a total enrollment of 209, whereas four classes of approximately 35 pupils each should be sufficient. There are seven first-grade classes for colored pupils, with a total enrollment of 360, whereas three classes of less than 30 pupils each should be sufficient.

#### THE SCHOOLS CARRY AN UNNECESSARY LOAD.

With 140 beginning pupils each year (assuming a stable population, not affected by fluctuations in birth rate, death rate, and other factors), and with normal progress through the grades, the total enrollment in the white elementary school would be 980, and in the

high school, 560; and in the colored elementary school, 581. (See Table 19.)

TABLE 19.—*Number of pupils enrolled in each grade, compared with number of appropriate age for the grade.*

Grades.	White.			Colored.		
	Approximate number at each age. <sup>1</sup>	Number in school of appropriate age for grade. <sup>2</sup>	Number enrolled.	Approximate number at each age. <sup>1</sup>	Number in school of appropriate age for grade. <sup>2</sup>	Number enrolled.
1.....	140	122	209	83	76	369
2.....	140	131	189	83	83	69
3.....	140	146	183	83	77	94
4.....	140	144	171	83	80	64
5.....	140	145	150	83	85	58
6.....	140	141	129	83	85	28
7.....	140	124	96	83	59	34
Total.....	980	953	1,127	581	535	707
8.....	140	108	97	.....	.....	.....
9.....	140	96	86	.....	.....	.....
10.....	140	70	42	.....	.....	.....
11.....	140	50	43	.....	.....	.....
Total.....	560	324	268	.....	.....	.....

<sup>1</sup> The approximate number of children at each year of age was obtained by computing the average number of those 7 years to 12 years of age, inclusive.

<sup>2</sup> The number of children in school of appropriate age for each grade was obtained by computing the average of 6-year-old and 7-year-old children for grade 1, the average of 7-year-old and 8-year-old children for grade 2; and so on.

In column 2 of this table is shown the actual number of pupils in school who are of ages appropriate for each grade. For grade 1 is entered the average number of children who are 6 years and 7 years old; for grade 2, the average number of those 7 years and 8 years old; and so on. These groups total, for the white schools, 953 elementary pupils and 324 high school pupils; and 535 colored elementary pupils. In the third column is shown the actual enrollment for the current year.

## V. THE ELEMENTARY SCHOOLS.

### THE CURRICULUM SITUATION.

The curriculum of the Elizabeth City elementary schools does not meet the requirements of a modern elementary curriculum. It contains no subject that was not taught 30 or 40 years ago in practically all of our schools, unless we except domestic science, and omits still some subjects that our better schools taught fully 50 years ago. The curriculum makes no provision for physical training. It is the first business of any school system to build up the bodies of its children. While the children in Elizabeth City schools have

brief setting-up exercises every day, there is no well-planned course of physical activity and play. Physical education in public school does more to improve the results of instruction than almost any other single factor. The citizens of Elizabeth City should wish to have their children trained in body as well as in mind.

Next, there is practically no music in the schools. What singing was heard was very poor. It should not be necessary to argue for the cultural and moral and physical values of good music. There can be no real community life and unity without it. The churches, civic organizations, clubs, and the like all need members who can sing. Is it not a responsibility of the schools? The citizens of Elizabeth City should expect their schools to assume a large share of the burden of the musical education of the children.

For the reason given for all deficiencies—no money—handwork and drawing have been sadly neglected. The little that is given in manual arts is very poorly done. There are no well-defined courses in these subjects. The citizens of Elizabeth City can not afford to have the latent artistic possibilities of its future citizens go undiscovered because the schools fail to arouse them.

Home economics is very poorly provided for.

Civics is an unknown subject in the elementary grades. Many of the children leave school before reaching the eighth grade, where civics are taught; hence they receive no systematic, well-organized civic training, and they are the ones who need it most of all.

Nature study, or elementary science, is entirely neglected except for brief unorganized series of lessons, often connected with language or geography work. Do the citizens of Elizabeth City desire that their children's love of nature be undeveloped? The love for natural and physical sciences should be aroused and developed. The children of Elizabeth City will experience difficulty in competing with children from other communities in technical fields if no basis for this work is laid.

What do the schools teach? Reading, writing, language, arithmetic, physiology, geography, history, spelling, and some drawing and home economics. Important features of modern public school systems are lacking.

It is a commonly accepted principle of curriculum making that the courses offered should reflect in some measure the local community, to help the child interpret his own environment. Such is not the case in Elizabeth City. The course offered would fit just as well in New England, Alaska, Montana, or New Mexico. The course is made out according to adopted texts from page to page. Most modern school systems write out a course of study to meet their own needs. Elizabeth City has no such course, but should have one.

Modern courses of study are generally differentiated, so that the slower children are not required to do the same amount of work in the same time as the brighter children. The practice of making every child progress at the same rate through school ought to be discontinued. Study of the results in Elizabeth City show that the bright child gets little more from school than the dull child and according to his ability not nearly so much. Is there any reason for holding a child back and giving him less than he wishes to do simply because he was created with more ability than his fellows? The course is entirely inflexible, except as the child bends it to suit his own mentality.

The courses in the subjects offered are much the same as those found in many American communities. The child is occupied chiefly with acquiring facts which, while interesting, perhaps, in some instances, are entirely useless now or hereafter. Practically none of the subjects have anything at all to do with shaping his character or establishing practical, sound ideals. Many of the facts he gets will never be used.

*Recommendations.*—1. There should be prepared and printed a modern, flexible course of study, adaptable to the needs of individual pupils.

2. Music, art, handwork, home economics, civics, gardening, elementary science, and physical training should be added to the curriculum.

3. The subjects now taught should be reorganized, with the elimination of worthless fact material and the inclusion of useful knowledge.

4. The curriculum should be adapted to the needs of the children of Elizabeth City. It should be stamped with characteristics of the Elizabeth City community.

5. The course should be organized around the large units of study, problems, or projects suitable to the grades in which they are used. Such a course increases interest and is essentially of the type to stimulate activity and initiative on the part of the children.

#### EQUIPMENT PROBLEM.

Seats, desks, blackboards, and buildings just about complete the list of equipment, and we might well eliminate most of the buildings from the list. The buildings are almost impossible of use, except the high-school building, and it will need modification to be of its greatest use.

School equipment costs money, and since it is used a great deal it will have to be replaced constantly. There is no way in these days of providing good but cheap education. The citizenship of Elizabeth City is responsible for the condition of its schools to the extent

that they have not provided ample funds for the maintenance of well-equipped schools.

Lack of equipment makes it impossible for teachers to do first-class work. Lack of equipment always gives teachers an excuse for doing poor work.

The following essentials in school equipment, without which the instruction in the schools will be greatly handicapped, are recommended:

1. Provision should be made at once for better buildings—particularly for the primary grades and the Negroes. These buildings should be correctly built for light, ventilation, and heating. These factors affect instruction.

2. Laboratories for manual training, home economics, and elementary science are necessary before these subjects can be even introduced into the curriculum properly.

3. There is a need of well-equipped playgrounds, open the year round. The children of Elizabeth City should be permitted and trained to play.

4. The buildings should have gymnasiums and playrooms. Health is the foundation of all good school work.

5. The schools need libraries, open all the year.

6. The classrooms need libraries.

7. The schools need a great many supplementary reading and reference books.

8. The schools are in need of illustrative material: Maps, pictures, charts, globes, manufacturers' exhibits, stereographic and stereoscopic apparatus, moving-picture machines, stereopticons and slides, weights and measures, and a school museum.

9. Space and equipment are needed for school gardens.

10. The primary grades need paper, cardboard, and all sorts of media for handwork and construction.

#### ORGANIZATION PROBLEM.

The present system of elementary schools consists of seven grades, promotions being made once a year. We recommend the reorganization of the whole system to consist of a kindergarten for children of ages approximately 4-6 years; an elementary school for children 6-12 years; a junior high school, 12-15; and a senior high school, 15-18. The reasons for this are set forth elsewhere. The following recommendations refer to the school organization problem:

1. There should be a kindergarten, a six-year elementary school, a three-year junior high school, a three-year senior high school.

2. Promotions should be made twice a year at least, and more often if possible.

3. There should be special classes for especially gifted children.
4. There should be special classes for retarded children, with care not to put together those mentally weak and those retarded merely because of health.
5. Children in the several sections of one grade should be classified according to ability rather than by physical age or size. This principle should be used with some reservations that will become apparent in its application.
6. The course of study should be flexible enough to fit a flexible grading system, providing more work for the better pupils and full work for each according to his ability.
7. The daily schedule should provide for laboratory and field work.
8. Departmental teaching should be provided in the intermediate grades, if specialists can be secured.
9. There should be a longer school day, made up of recitation, study, manual activities, and play.

#### THE SUPERVISION PROBLEM.

The chief cause for deficiencies in the elementary schools is the complete lack of supervision of the instruction and leadership for the teaching staff. The schools, both primary and intermediate, are virtually without principals. The teachers acting in this capacity have full-time teaching duties, while the superintendent of schools, who has part of the responsibility in supervision, is entirely too busy to give the attention really needed.

Supervision of instruction means briefly these: The establishment of common aims of work among the teachers; discussion of means to attain these ends; measuring the results of the instruction; and remedial measures to correct and improve the teaching.

No one in the entire system has these things as his duties at the present time. Each teacher does what she can. Skilled advice and helpful inspiration are wholly wanting.

In addition to the instructional side of supervision, there is an administrative routine demanded of a principal. This routine consists of schedule making, discipline, parents' meetings, class organization, reports, physical conditions, janitors, and many other such matters. These things are taken care of now, as added burdens, by two full-time teachers. As a result, their work or the administrative duties must suffer.

The following suggestions refer to supervision:

1. There should be appointed a supervising principal for the primary school and one for the intermediate school. These principals should not be required to teach more than 8 or 10 hours a week.

2. These principals should be persons who have had special training for supervision.

3. With the introduction of music, art, physical training, and home economics, supervisors should be appointed for these subjects, who will devote part of their time to assisting and directing the work in these special subjects done by the regular teachers.

### THE INSTRUCTION PROBLEM.

The results obtained in the Elizabeth City schools compare favorably with the results found elsewhere in spelling, reading, and problem solving in arithmetic, while the results in the four processes in arithmetic are far below standard. The work in geography, language, literature, history, and physiology is of the usual sort, and done in about the same study-and-recite fashion common to the average American school. The instruction is neither good nor wholly bad. It is disconnected with modern educational practice. The teachers teach as they were taught and as they have been taught to teach. They make an assignment, the children learn it, and recite it. The ability and power of the ordinary child are never discovered, never utilized.

Such conditions are traceable to the teacher training methods in this country more than to anything else. It is much the same elsewhere as it is at Elizabeth City. Better work can be done. Does Elizabeth City want it? We believe that Elizabeth City would be willing to pay for high-class teaching if it had the opportunity.

The following suggestions refer to the teaching situation:

1. Teachers should be trained both in subject matter and in the methods of instruction.

2. The teachers should be selected because they are intellectual leaders as well as educated persons.

3. The teachers should be required to be social and civic leaders, and should be selected in part for ability along this line.

4. Employment should be open to married women, if necessary, in order to retain good teachers in the system. Good teachers are too scarce to permit marriage to render them ineligible.

5. Teachers should be given a definite course of study, with thoroughly understood objectives to be reached in every grade.

6. The teachers should be given thorough and inspiring supervision.

7. The results of instruction should be constantly measured and necessary remedial steps taken.

8. Teachers should be encouraged to get away from mere parrot-like learning of a book. Children learn more from direct observation and experience than in any other way.



9. The problem or project method of instruction should be employed where applicable in all grades. This will provide opportunity, interest, attention, self-activity, and objectiveness in instruction.

10. Demonstration lessons should be given for the benefit of the teachers.

11. Teachers should be permitted to visit other good teachers.

12. The amount of home study in the intermediate grades should be reduced.

13. The amount of time devoted to spelling, arithmetic, and grammar should be reduced, and the time saved given over to history, geography, literature, music, civics, nature study, physical training, art, etc.

14. Much time can be saved in instruction if the work is organized around big problems, if the child learns by doing, and if useless, unimportant material be eliminated.

15. Supervision should emphasize those types of instruction which develop initiative, responsibility, and self-activity on the part of the child.

#### KINDERGARTENS.

1. Kindergartens should be established for children from 4 to 6 years of age.

2. The spirit of the kindergarten should be carried on into the elementary school through the application of kindergarten principles to primary work.

3. The primary teachers should have expert supervision and inspirational leadership in applying these principles in the teaching of the regular school subjects and also in teaching manual arts, singing, and games.

4. Modern schoolroom equipment and playground equipment should be provided to carry out this program.

5. Children should be carefully graded by development and not by age.

6. Health inspection and health instruction should be a part of the regular school program.

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#### VI. THE HIGH SCHOOL.

1. The high school should make a definite attempt to meet the needs of those who drop out after only one, two, or three years of study, as well as of those who complete the course.

2. The work of the high school should be based upon consideration of the following main objectives of education: (a) Health; (b) command of fundamental processes; (c) worthy home membership; (d) vocation; (e) citizenship; (f) worthy use of leisure; (g) ethical character.

3. The present plan of seven elementary-school grades and four high-school grades is defective in a number of particulars, among which are:

- (a) Inadequate provision for the needs of individual pupils.
- (b) Large amount of retardation of pupils through method of promotions.
- (c) Large numbers of students dropping out at end of seventh and ninth grades.
- (d) Secondary school course is begun at too late period in the child's life.
- (e) Unnecessary repetition of the subject matter studied.
- (f) Wide divergence of interests and needs can be met better by segregation of adolescent children from younger primary children.
- (g) Poor adjustment between the elementary school and the high school.
- (h) Poor adjustment of school activities to life activities.
- (i) Elementary methods too long continued and too suddenly changed.
- (j) Inadequate provision for individual guidance and direction.

4. Some advantages of the proposed reorganization on the basis of six years elementary school, three years junior high school, and three years senior high school:

- (a) An expected decrease in numbers of pupils who drop out of school in grades 7, 8, and 9.
- (b) More suitable training for the majority of the pupils.
- (c) More adaptation to individual needs.
- (d) More adequate provision for vocational guidance.
- (e) Better plan of promotions.
- (f) Better adjustment between elementary and secondary education.
- (g) Fewer failures and repeaters.
- (h) Conditions more favorable for improvement in the quality of instruction.
- (i) Economy of pupils' time.
- (j) Better adjustment between school activities and life activities.
- (k) Conditions more favorable for study.
- (l) Better supervision of social and recreational activities.

5. The high-school course should definitely recognize the fact that the young people are about to enter agriculture, business, trades, home making, and other occupations.

6. A printed circular should be provided for the guidance of children and their parents, with full description of the work of each course.

7. A limited number of curriculums should be offered, with a minimum of electives, based on the experience of successful junior-senior high schools.

8. Provision should be made for cooperative part-time classes, evening classes, and vacation classes.

9. The quality of the instruction averages up well with that observed in other high schools.

10. There should be a definite salary schedule for teachers, with a plan of promotions based on merit.

11. The present high-school building falls very far short of accepted standards for a modern high-school building, being especially defective in regard to lighting, heating, ventilation, fire protection, general equipment, and provision for special classes.

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## VII. HOME ECONOMICS.

Home economics instruction should include something more than just the technic acquired in the preparation of a few foods and the making of a few sewing models. It should awaken in the child appreciation of the value and possibilities of a real home.

The instruction should be adapted to the girl's age, interests, mental development, and the racial, religious, social, and economic conditions of her home.

The school must recognize that the physical health and economic stability of the Nation are vitally affected by the wisdom or ignorance of the mass of women as to the laws of health and the use of material goods.

For white pupils two types of course should be provided, general and intensive. The general course should be required of all girls in grades 5 to 9, inclusive, who are of normal age for their grades. The intensive courses should be open to all girls 14 years of age or over.

Instruction should deal with problems related as closely as possible to home conditions and should be correlated with other school subjects.

For the present, emphasis in home economics should be given to work in grades 5 to 9; elective courses for the higher grades may be developed later.

For all colored girls, home economics should occupy an important place in education from about 11 years of age until completion of school; the work should be of the most practical type, with strong emphasis on sanitary practices, good workmanship, and hygienic personal habits.

At least one-fourth of each school day should be devoted to this work.

There should be four teachers of home economics in the white schools and three in the colored schools.

In the white schools there will be needed two rooms equipped for food work, two for clothing work, a small dining room, with suitable storeroom and closets.

In the colored schools there should be provided three rooms for food and clothing work, and one for meal service and practical house-keeping.

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## VIII. MANUAL TRAINING.

A well-organized scheme of manual training throughout the schools, white and colored, should be developed, both for its general educational value and as an essential foundation for subsequent vocational work.

Manual training is here used in the accepted sense of an educational agency involving not only a method of instruction and a content of valuable subject matter, but a means also of self-directed, purposeful activity.

The object in view should be to incorporate the best features applicable to local conditions that have been developed by progressive communities, with lines of work of such variety and scope as may be practicable.

Handwork should be developed first in the lower grades, and throughout the elementary school should be employed in its various phases for the accomplishment of at least three distinct educational ends: (1) To develop manipulative skill and the ability to "do" things; (2) to impart knowledge of materials and processes of construction; and (3) to vitalize the instruction in the various subjects of study, such as geography, history, language, and science.

In the earlier grades the best results are secured when the handwork is taught by the regular grade teachers. It is much easier for these teachers to relate the work to the other studies and activities of the children. With the progress of the children through the grades, however, the work becomes more and more complicated and the tools and processes more difficult of manipulation. In time the point is reached beyond which it is impracticable to expect the grade teacher to acquire the necessary technical skill and knowledge to carry on this work in addition to all the other requirements of her position.

From this point, probably the fifth grade, the situation may be met by employing special teachers or by a plan of departmentalized teaching.

During the earlier grades the handwork should be substantially the same for boys and girls. With the beginning of departmental teaching a gradual differentiation in the work should be introduced.

In general, the interests of the girls will tend in the direction of sewing, cooking, and homemaking, and the interests of the boys toward shopwork and drafting. Both boys and girls will manifest interest in commercial subjects when properly presented.

For obvious reasons the teachers of drafting and shopwork, as well as of agriculture, for boys in the upper grades should be men.

In the lower grades not less than 30 to 60 minutes per week should be allowed for handwork, but a more liberal time allowance should be made as soon as suitable equipment can be provided and teachers are prepared to do the work. Ultimately from two to three hours per week should be provided.

Supplies of materials in sufficient quantity and variety to make the work profitable and educational should be provided by the board.

*In the upper grades.*—Even more time must be allowed for manual training in the upper grades if the expected results are to be secured and if boys and girls who now drop out of school in such large numbers are to be retained.

With the right kind of equipment, properly qualified men teachers, and appropriately modified courses of study, from 5 to 7 hours weekly may be devoted to manual training in grades above the sixth, and in special prevocational classes at least one-half the school time should be devoted to practical activities in shop, laboratory, and drafting room.

With the beginning of departmental teaching the lines of work should include thin wood, bookbinding, clay, cement, and plaster, and such other groups as further study of conditions may indicate.

Beginning with the seventh year, the boys should carry still further the problems in bookbinding and woodwork, and to these should be added suitable work in copper, brass, iron, leather, cement and concrete, electricity, mechanical drawing. The woodwork may well include some simple framing and carpentry.

All the shopwork and drafting should be made as practical as possible.

Practical work in gardening, agriculture, and commercial subjects should be developed parallel with the manual training.













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